University News

WEEKLY JOURNAL OF HIGHER EDUCATION MONDAY, MAY 22, 1995 Rs. 7.00

S. MUTHUKUMARAN

Openness in University Examinations

D.K. GHOSH

Concept of University Company — UK Story

J.N. KAPUR

Criteria for Accreditation

MEENA HARIHARAN

Time Management of College Teachers — Some Issues

L.M. THAPAR

The Basic Meat — Convocation Address

SCIENCE PARK OF THE FUTURE

MECHANICS OF ACCREDITATION

WORKSHOP ON HUMAN RIGHTS EDUCATION

Association of Indian Universities

MOTHER TERESA WOMEN'S UNIVERSITY

KODAIKANAL-624 102

NOTIFICATION NO. 81

Applications for admission to the following courses are invited from **WOMEN CANDIDATES** possessing the required qualification specified for each course COMMENCEING FROM JULY 1995.

COURSES OFFERED	ELIGIBILITY
I. M.PHIL — REGULAR	
a Economics	
b. English	
c Family Life Management	
d. Historical Studies	Post Graduate Degree with not less than 55% in the concerned subject
e Sociology	
f Tamil	
g. Population Studies	Any Post Graduate Degree with not less than 55%
h Education	Any Post Graduate Degree and M Ed with not less than 55%
II. POST GRADUATE COURSES	
1 M.A. REGULAR	
a. Business Economics	Bachelors Degree in Economics with 50% or any other Bachelors Degree with Economics as one of the subjects
b. English	Bachelors Degree with 50% in PART-III (English Major or PART-II (English)
c. Tamil Studies	Bachelor's Degree with 50% or any Bachelor's degree 50% in Part I (Tamil)
d Mass Communication	Any Bachelor's Degree with 50% (Medium of Instruction-Tamil)
e. History and Tourism	Any Bachelor's Degree with 50%
f. Women's Studies	Any Bachelor's Degree with 50%
g. Guidance and Counselling	Any Bachelor's degree with 50%
h Sociology	Any Bachelor's degree with 50%
2 M C.A. - REGULAR	Candidate with B E/B.TECH or FIRST Class B Sc/B Sc Science/B Com each with Mathematics/Statistics/Computer Oriented subjects as one of the main or ancillary subjects or I class B Sc Computer Science/ Computer Technology
III. POST GRADUATE DIPLOMA COURSES — REGULAR	
a Computer Applications	First Class B.Sc Mathematics or Physics or B Com or any other subject with Mathematics as ancillary subject
b Entrepreneurship and Industrial Training	Graduate in Arts, Science, Engineering and Management with 50%
c Health and Family Welfare	Any B Sc Graduate with 50%
IV. CERTIFICATE COURSES — PART-TIME	
a. Software Packages (D base)	Any Graduate

For all above mentioned courses application forms can be had from the Registrar, Mother Teresa Women's University, Kodaikanal, with a Demand Draft for the cost of application as specified below with a self-addressed stamped envelope for Rs 5/-

COST OF APPLICATION

M Phil	-	Rs 75/-
M C.A	-	Rs 100/-
M A	-	Rs 50/-
P.G D C A	-	Rs 50/-
P G Diploma Courses	-	Rs 50/-

ENTRANCE EXAMINATIONS

Entrance Examinations will be conducted for Master of Computer Applications Students The candidate with 60% and above will be eligible for Entrance Examination

For all other M Phil/Post Graduate Courses written examination or orals may be conducted

THE UNIVERSITY RESERVES ITS RIGHT TO SHORT LIST THE CANDIDATES

All tests will be conducted at Kodaikanal The candidates have to attend the tests at their own expenses. No Boarding and Lodging facilities, will be given by the University

NOTE

LAST DATE FOR ISSUING AND RECEIVING APPLICATION FORMS — 05.06.95

For each course, a separate application form is to be obtained.

The University will not be responsible for the postal delay. Candidates are therefore asked to apply well in time

If sufficient candidates are not available the University has the right to suspend any course.

V PH.D COURSES BOTH REGULAR/PART-TIME ARE AVAILABLE FOR ALL THE FOLLOWING COURSES

a. Economics	e Historical Studies
b. Education	f. Psychology
c English	g. Sociology
d Family Life Management	h. Tamil

Ph D Registration is done throughout the year. Prospectus and Application form can be had by sending a Demand Draft for Rs. 100/- drawn in the Registrar with requisition addressed to Controller-in-charge of Examination and a self addressed stamped envelope for Rs 5/-.

REGISTRAR - IN - CHARGE

UNIVERSITY NEWS

VOL. XXXIII MAY 22
No. 21 1995
Price Rs. 7.00

A Weekly Journal of Higher Education published by the Association of Indian Universities

IN THIS ISSUE

Openness in University Examinations 1

Concept of University Company — UK Study 3

Criteria for Accreditation 6

Time Management of College Teachers 9

Convocation

Indian Institute of Management, Lucknow 12

Campus News

Workshop on Human Rights Education 16

Mechanics of Accreditation 17

Dalit and Feminist Trends in Indian Literature 19

Agriculture

Focus on Farmers 21

News from UGC

Countrywide Classroom Programme 21

News from Abroad

Science Park of the Future 25

Book Review 27

Theses of the Month 29

Classified Advertisements 40

Opinions expressed in the articles are those of the contributors and do not necessarily reflect the policies of the Association.

Editor :
SUTINDER SINGH

Openness in University Examinations

S. Muthukumaran*

Why are the names of question paper setters and valuers of answer papers kept secret ? Why is the name of the printing press where the question papers are printed kept confidential ? The ostensible reason given is that it will help in preventing malpractices such as leakage of question papers from the examiners, from the printing press and the influencing of the valuers by the examinees, etc.

A brief introspection will bring out the following :

Keeping the name of the question paper setter confidential provides protection to the question paper setter; even if the question paper is leaked out by the setter, the newspapers carry a news item that such and such question paper of the University of ..... has leaked out. If the question paper has leaked from the printing press, again the news item will be that such and such question paper of the University of ..... has leaked out from a private printing press situated at ..... where the question papers are printed. In both types of situations, the name of the setter or the name of the printing press, as the case may be, will not be published; whereas the name of the University will be publicised prominently.

Newspapers quite often carry news such as the following :

In the University Senate meeting it was alleged that the answer papers are being valued very carelessly.

No body mentions the names of the teachers who value carelessly; but every body knows the name of the University where the answer papers are alleged to be valued in a slipshod manner.

It is not known whether secrecy in the university examinations helps in preventing malpractices or not; but it is known that it protects the question paper setters, answer paper valuers and the printing press. It leaves the University wide open for criticism for all the commissions and omissions of the question paper setters, valuers of answer papers and others connected with the university examinations.

From a consideration of the foregoing, one may be tempted to consider the following option: The names of question paper setters and valuers of answer papers need not be kept confidential. It is known that in the educational institutions where the examinations are wholly internal, there are not many complaints about shoddiness in question paper setting and valuing of answer papers. *The universities may consider the possibility of constituting Boards of examiners even at the beginning of an academic session and make the information available to all. The responsibility of setting the question papers and valuing of answer papers will be with the Board.* If the Board so wishes to coopt more persons for valid reasons, they may be permitted to coopt and those

*Former Vice-Chancellor, Bharathidasan University, Tiruchirappalli.

names may also be made known. The responsibility of the University office will be only to get the question papers printed and also conduct of the examinations. The answer papers may be safely handed over to the Board of Examiners for correction. *The Board will be responsible for the correctness of the question papers, the proper evaluation of answer papers and promptness in providing the results.*

It may be appropriate to mention here that a Tamil Academy was functioning at Madurai nearly one hundred years ago. It used to conduct examinations for qualifying as Tamil Pandit. The academy used to announce in their journal the name of the examiner for the year. That examiner was responsible for the setting of the question papers and for valuation of the answer papers. It was known that it was indeed very difficult to pass this examination. In those days only those who passed this examination were appointed as Tamil Pandits in schools and as Tamil Lecturers in the University of Madras and its affiliated colleges.

It is for consideration of *the universities and autonomous colleges to try* atleast on an experimental basis for some courses for which the number of students is limited, this method of *announcing publicly at the beginning of the academic year the names of those who constitute the Board of Examiners. This course of action will ensure greater responsibility in selection of students* (those who do not possess the characteristics of a good student will not get admitted to the University courses); *and transfer of responsibility for the correctness of the question papers and proper valuation of answer papers to the right shoulders,* i.e. those who set the question papers and value the answer papers will take the responsibility for the proper setting and valuing. It will be in the interest of higher education in our country if the universities slowly and steadily move towards creation of autonomous colleges, introduction of internal evaluation and openness in examinations.

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

VADODARA - 390 002.

NOTIFICATION NO. ADE/1 [redacted]

Applications are invited for the following posts in the University & its Institutions. The prescribed form alongwith other details like place of vacancy requirements of qualification etc. can be obtained from the University Office from **10-5-1995 to 12-6-1995** on any working day by sending a request to the Registrar, M. S. University of Baroda, Vadodara – 390 002 alongwith a self addressed envelope of size 30 cms. x 12 cms. accompanied with a Demand Draft drawn in favour of the Registrar, M. S. University of Baroda of Rs. 50.00 (Rs. 15.00 for members of Scheduled Caste and Scheduled Tribe) which includes cost of application form and fees, or by making payment in cash to ADE Section of the University Office for the same during working days only between 11-00 a.m and 2-00 p.m. No amount will be accepted either by M.O. or by Postal Order except in cases of SC/ST where they can send Postal Order of Rs. 15.00 for the concerned post or pay the amount in cash as stated above. The SC/ST applicants will have to furnish a copy of the Cast Certificate, at the time of requesting for application form. The SC/ST candidates coming from outside Gujarat State while requesting the application form shall also have to produce a certificate from the competent authority of the Gujarat State mentioning that the Gujarat State has recognised them as SC/ST for the purpose.

The application form duly completed in all respect alongwith necessary enclosures should reach the Registrar, M.S. University of Baroda, Vadodara – 390 002 on or before 19-6-1995.

VADODARA
Dated : 6-5-1995

D. P. CHHAYA
Registrar

Sr. No.	Name of the Post	Scale of Pay	No. of post with reservation, if any
1.	Deputy Librarian-cum-Coordinator	3700-5700	1
2.	Deputy Registrar	3000-4500	2 (1-ST-R)(1-Open)
3.	University Engineer	3000-4500	1
4.	Computer Programmer	2200-4000	1 (ST-R)
5.	Documentation Officer	2200-4000	1 (ST - R)
6.	Training & Placement Officer	2200-4000	1 (ST-R) R = Readvertised

Concept of University Company — UK Story

Possibilities in the Indian Context to Boost Income Generation in Higher Education

D.K. Ghosh*

Background

In UK, in 1981, following a general policy of reduction of public expenditure by the newly elected Conservative Government led by Margaret Thatcher, within a few months of its installation (1979), allocation for universities was reduced through the University Grants Committee now bifurcated into three Funding Councils called Higher Education Funding Council — one each for England, Scotland and Wales. Grants of the universities were reduced on a selective basis by 6% to as high as 44% which posed threat of survival at least to a few universities and some of them had almost reached a stage of 'bankruptcy'. This was announced in July, 1981 giving time for restructurisation making the cuts effective from 1984-85.

From 1981-82, the UK higher education system has undergone sea change in almost all respects. Constituents of the universities who initially reacted to government's action and were not quite willing to accept and participate in various restructuring activities including special efforts to generate income, gradually accepted the inevitable situation. Criticising the indifference and inaction of the universities to the suggestions of the Minister of State for Education and Science of the Labour Government as early as in 1969, to increase student-teacher ratio, to encourage students to study within the reach of home, to make more efficient use of buildings and equipments, to avoid duplication of facilities etc., in 1981 in a debate in the House of Commons, a Member of Parliament said that the Universities did nothing since then (since 1969 warning) to the suggestions of the Minister. He observed that ".... universities walked so tall that they only had to shout loud enough that they were centres of excellence and everyone would bow. Universities walked so tall that they sometimes forgot about the ground".

Universities had to face enormous problems of restructuring, but when pushed to the wall, finally all of them rose to the occasion and they are now doing well. They have become more transparent, efficient and cost-effective. Universities moved out of UK to sell themselves 'aggrasively' and generate income through international contract research and consultancies. They also developed new programmes to attract more foreign students from whom very high fees are charged. Within the country, University-Industry interaction was given a boost which helped both the universities and the industry.

Success Story — University Company

How did the universities succeed in giving a boost to the income generation efforts? It was the pressure on the universities to explore all possible avenues to increase income and in that process, universities decided to establish *University Company* as the interface between the university and industry. In a number of universities in UK today, University Company system is functioning with full success.

Years back, many universities in UK had realized that the university was not a business oriented group and therefore to expect that they would perform commercially in that direction so as to deliver the goods, was not practical. It was also realized that for boosting income, some commercial activities were unavoidable and therefore there was a need to create an interface body of the university which would function as an independent professional body for commercial activities and would sell the university expertise and facilities to the industry and other organisations inside and outside UK. It would also help the faculty to win contracts and complete consultancy activities. (For group activity it is called *contract research* and when it is an individual activity it is called *consultancy*). The company would also keep constant pressure on the faculty for timely completion of work.

Historically, many of today's University Companies were originally established as Commercial Bureau which, as time passed by, grew into regular University Company, wholly owned by the University.

*Registrar, IIT, Bombay-400 076.

Structure of University Company

Generally, the structure of the University Company is that there is a Board of Directors with the Vice-Chancellor as the Chairman. In addition, a few members are drawn from the university system and some from the industry and financial institutions. The Board meets at fixed intervals for policy decisions.

In Salford, it is called the Salford University Business Services Ltd. It is the most successful university based company in UK with an annual turnover of over £ 11 million. It has even associated companies including one with the City Council of Salford. All told, the turnover is of £ 23 million per annum.

Much of the success of the University Company depends on the Managing Director or General Manager of the Company. An ideal incumbent is he who has strong industry background with good academic achievements. A combination of this with teaching or research experience in a university always helps for successful performance and delivering the goods.

Objectives of the University Company

Broadly, objectives of the University Company are as follows :

* To undertake commercial activities otherwise not possible by University directly;
* To perform along commercial lines with an outsider inducted as Manager or Managing Director with strong industrial background;
* To free Faculty from various formalities and act as interface between University and Industry;
* To act as the first contact point for external enquiries and develop contacts between faculty and industry; and
* To transfer the profits to the University which is a non-profit making body.

Model Organisation

The model organisation of the University Company in UK is generally as follows :

* Contacts Group
* European Office
* Business Development Section
* Finance Section
* Technology Transfer Section
* Support Structure
  — Central Services
  — Finance Section

Contacts Group

The contacts group performs in very important areas which are essential to present and future activities of contract research of the University. In particular :

* it aims at protecting and increasing academic and financial interest and maximising long term academic and commercial benefits.
* advises and offers direct support services in negotiating contract research and consultancy activities.

Another important area where this group operates is to introduce funding opportunities to areas of the university where potential has not been maximised and to promote cost-effective collaborative research and consultancy work.

European Office

The universities all over Europe have opportunities for contract research. They are however required to win through bids and are therefore competitive, which requires the universities to have separate Office —

* to ensure that the university gains maximum advantage from European Community initiatives;
* to co-ordinate the university's European activities with special focus on collaborative research; and
* to assist academics at all stages of a project from bid preparation, contract negotiations to the total contract management.

Business Development Section

Basic to the various responsibilities of the University Company, *Business Development Section* is the most important section which aims at :

* Developing new contacts and sources of funding, particularly from industry through marketing of university research expertise and a programme of industrial visits to assess corporate research needs; and
* Planning dissemination of a range of research funding opportunities and other research programme information to increase contact bids and income.

Added to the above responsibilities which involve a large number of associated questions and

solutions, the *Business Development Section* also does the following :

Manages all personnel related work, university's performance related pay scheme and appraisal system. This includes Reception, Central Secretarial support and other office services.

These may not appear to be significant, but in reality they are important for if these are taken care of well, the faculty is comfortable to do a lot for they are not required to face at times irritating situations of mundane matters.

Finance Section

The Finance Section has its own importance for after all it is for money that all the activities are undertaken. Unless the finance aspect is managed well and accounting is done properly and on time, consequential problems would lead to a number of unhappy situations. Another important work is tax management and getting the accounts audited by the statutory auditors.

In addition, the Section also does the following important jobs :

* Managing all legal affairs when inventions are to be exploited, designs, software and know-how and marketing of inventions to potential licencees.
* Negotiating licence terms and royalty levels with licencees and monitors the performance of the licencees.

Technology Transfer

This is yet another area where specialised knowledge and experience is needed. When the University Company handles the technology transfer, it does so with professional skill. Precisely, it aims at :

* protecting valuable ideas and from legal and copyright complications,
* managing exploitation of inventions, designs, software and know-how, including patented material, and
* advising to explore the option for exploration.

Support Services

Besides the various responsibilities of the University Company as mentioned in this paper, it also publishes monthly Newsletter and offers follow up advice and assistance to staff.

Overall Gains

Coming to the question of the overall performance of the University Companies in UK, the achievements could be measured as follows :

* Income of Contract Research and Consultancy increased upto three times,
* Larger number of faculty involved — increased by a factor of three, and
* Visible credibility in government, industry and society at large.

Possibilities in the Indian Context

With the passage of time and the pressure of the resource crunch, the universities of UK, which generally were rather conservative (in the sense of accepting business oriented approach), accepted the concept of the University Company and found in reality a boon to boost the income generation.

It is possible that in the Indian context, to many, the concept may not look workable. However, there is no denying the fact that to a great extent, due to the absence of an interface body between the University and the Industry much of what could have been done, has not happened. In other words, our huge resources of experts and physical facilities have remained and will remain underutilised and in many case unutilised.

In the Indian context, there are, of course, some legal and procedural tangles, but they can be overcome once the government and the university system think that this is necessary and once the policy decision is taken, amendment of relevant laws becomes easy. To me, this is inevitable. It is only a question of how soon?

TO OUR READERS

Knowledgeable and perceptive as they are, our contributors must not necessarily be allowed to have the last word. It is for you, the readers, to join issues with them. Our columns are as much open to you as to our contributors. Your communications should, however, be brief and to the point.

CRITERIA FOR ACCREDITATION

J.N. Kapur*

The Two Sets of Criteria

In a recent issue of the *University News*, there were two items on Accreditation. The first was an article by P.H. Sethu Madhava Rao[1], Joint Secretary of the University Grants Commission. He proposed the following five criteria for accreditation of an institution.

- Its overall contribution to knowledge, the standards it has maintained during the last 25 years, and the number of scholars of repute it has produced;
- The number of its faculty members who have got national recognition;
- Participation of its faculty members in national and international conferences and their publications;
- Library and laboratory facilities available; and
- Calibre of students seeking admission to it.

The second item concerned the following five criteria proposed by the National Policy Board on Higher Education Institutional Accreditation (USA)[2].

- Provide an undergraduate education that ensures competence in oral and written communication, scientific and quantitative reasoning, critical analysis/logical thinking, and technological literacy;
- Clearly define processes for establishing and evaluating all educational programmes, conduct evaluation on a regular basis and integrate the findings into the institutions overall planning and evaluation;
- Provide evidence that programme reviews lead to the improvement of teaching and learning processes;
- Identify and publish expected learning outcomes of each undergraduate and graduate programme and demonstrate that students completing these programmes have achieved them; and
- Document the technical and professional competence of students completing vocational and occupational programmes.

A Broad Comparison of the Two Sets of Criteria

1. In the first set there is no explicit mention of learning and teaching outcomes and the main emphasis is on research outputs. On the other hand, in the second set, the main emphasis is on learning and teaching outcomes and there is no explicit mention of research outputs. In fact America has always emphasised learning and teaching outcomes and the result is that America has first rate research output. In India, the emphasis, specially after independence, has been on research, with almost complete neglect of learning and teaching with the result that here in general learning and teaching have continuously deteriorated and we have only mediocre research because no country can have excellent research on the foundations of weak learning and teaching.

2. In the first set, there is no mention of evaluation of educational programmes, on getting feedbacks and continuous improvement of programmes. In the second set, these are given the highest possible importance. In America evaluation is done for all programmes at all levels and accreditation is almost the final step in the evaluation process. In India, evaluation of educational programmes is not even talked about and no systematic procedures have been developed and now we are thinking of starting first with the last step of accreditation.

From the Top Down or from the Bottom Up

In India, we had relatively much better learning and teaching before independence and there was little research in the university system. After independence all emphasis was placed on research and all the rewards were offered to those who did research. Gradually learning and teaching began to be de-emphasised and increasing importance began to be given to research work. Good teachers were humiliated and poor researchers were honoured. It was hoped that the effects of research will percolate down and improve the health of the educational system. Good researchers will

*Jawaharlal Nehru University and Mathematical Sciences Trust Society, C-766, New Friends Colony, New Delhi-110 065.

produce good college teachers who will produce good learners and good teachers for schools who will produce good students for the universities and ultimately good persons for research. This did not happen. Learning was not assessed properly, only cramming was assessed. Good teaching was neither recognised nor bad teaching punished. We began to produce poor quality undergraduates, poor quality school teachers, poor quality postgraduates and poor quality research workers. The health of the whole educational system suffered badly and we did not even recognise that this was due to our devaluation of learning and teaching outcomes. On the other hand, in Western countries, the greatest importance was given to primary and secondary education and quantitative measurement of both learning and teaching outcomes was continuously encouraged. In many places, the per capita state expenditure on primary education was more than the per capita state expenditure on university education where students themselves and industry, which benefits from higher education, also contributed. The result was that they had good graduates leading to good learning and good quality research.

Simultaneous Evaluation of all Educational Programmes

1. The above discussion does not mean that we should not have an accreditation programme. It only means that the evaluation of *all* educational programmes at *all* levels has to be undertaken simultaneously and even before launching the accreditation programme, mechanism for its evaluation and feedback should be built into it and should always be kept in mind when implementing this programme.

The UGC can set the ball rolling by getting all its programmes evaluated by independent agencies according to well-defined criteria and in a precise, scientific and objective manner and should begin using the feedback received to improve the programmes. If necessary, the UGC should be prepared to give up some of its programmes if they are not successful. Many of its own programmes have either not been evaluated or evaluated in a cursory fashion, and even if evaluated, the results of such evaluations have not always been used to improve the programmes, sometimes under political pressures.

Each college and each university should begin evaluating its own performance in learning, teaching, research and management according to some all-India standard criteria. Such criteria have been suggested[3-6] and can be finalised by the UGC. After self-evaluation is done, some outside agencies may be invited to assess the strengths and weaknesses of the institutions. Private professional groups may be formed to advise colleges and universities in such evaluations.

Similarly every school and school system should do both self-evaluation and evaluation with outside help.

2. We have to develop criteria for evaluation of every educational programme and these criteria should be preferably developed by those involved in the programmes, so that they are conscious of the goals to be attained as they would have participated in the formulation of the goals. We can learn something about the techniques of evaluation and feedback from our management schools, efficient industries and from the experiences of other countries. We should not hesitate to learn from all sources to develop our expertise in the area of evaluation and feedback for educational programmes.

3. In the West as well as in some of our good universities, students are being continuously evaluated through a continuous internal open assessment system and are being constantly provided with a feedback, to improve their study habits. Teachers are being constantly evaluated through students instructional surveys and through the course files which these teachers maintain. We must also introduce both these evaluations in our system as soon as possible.

4. Similarly in the West every school district gets the learning outcomes of the students of its schools evaluated by outside professional bodies in each individual subject. Thus while teachers have the freedom to teach and examine their own students, they are conscious that the outcomes of their efforts are going to be assessed by an outside unbiased agency. They use this evaluation to continuously improve their teaching. This is done because all school students are not mature enough to assess their teachers themselves. In our case, there is only one assessment at the end of ten years through a Board Examination and that too has lost its credibility because of the mass copying problem. Even otherwise, this evaluation comes too late and it does not tell the students and the teachers about the weaknesses of the students and as such it is not of much help. The evaluation and feedback processes have to be continuous in order to be effective.

5. It is relatively easier to measure the research output of a person and it is relatively more difficult to assess his teaching and learning outcomes. We have

adopted the easiest criterion for promotions in the university system and neglected the others. This means that no importance is attached to learning and teaching and so these get neglected.

6. It is obvious that unless we do all evaluation of learning, teaching, management simultaneously and use these to improve learning, teaching and management, simple accreditation will not take us far. In fact in the absence of reliable data on learning and teaching outcomes and on efficiency of management, the accreditation is likely to be based on only research outputs of institutions. However, good output of research does not mean that the institution is good because this good output may be obtained at the cost of good teaching. This fact was discovered in USA and Australia long time back, but there the students were severe on research professors who neglected teaching. Here no such self-correcting mechanism is available. Accreditation on the basis of only research will mean that teaching and learning would be even more neglected with disastrous consequences for our educational system.

Concluding Remarks

1. It is sometimes stated that students reaction surveys are not being introduced because students can be biased by caste or other considerations. As such in the beginning, their results may neither be used against the teachers nor by the teachers in their favour. They should be used only as feedback to the teachers for improvement of their teaching. It is only after the validity of this evaluation is established that it may be used for accreditation purposes.

2. It is again stated the continuous internal assessment cannot be introduced because here the teachers cannot be trusted to be fair. However every teacher has to be fair in this system because the system has to be open. The teacher has to show the answer books to all students and the teachers can be asked to give only relative grades to the students.

3. It is also stated that both students and teachers will resist the system because it will mean harder and more regular work by them. It is also likely to be more expensive, but then how can we have a good system without students and teachers working hard and without either the students or the government being prepared to spend more money on the system ?

4. Moreover, if the vested interests can resist evaluation, they can also resist accreditation or they can make it ineffective by a majority of institutions staying outside the accreditation system.

5. The vast majority of our students study in institutions where no research work is being done. If research is going to be the only criterion evaluable, these institutions cannot be accredited. Only universities with a small number of students and with good resources, which are already known to be good, will be accredited and the processes of accreditation may help to declare others as beyond redemption. Some institutions on the boundary line may cross the fence, but the crossing may be in either direction.

6. An important task which the accreditation council may undertake is the accreditation of departments for their Ph.D programmes. If substandard Ph.D programmes can be disaccredited, it will be good for the health of the whole educational system. Another useful task that it can do is to develop objective criteria for all evaluations at all levels and make these available to all institutions interested in self-development.

References

1. P.H. Sethu Madhava Rao (1994) Accreditation : A possible criteria, *University News* 14-11-94.
2. Standards for Accreditation. *University News* 14-11-94.
3. *J.N. Kapur* (1990) Criteria for excellence in research. *University News* 12-3-90.
4. _____ . (1991) Criteria for excellence in teaching. *University News* 23-12-91.
5. _____ . (1993) Criteria for excellence in learning. *University News* 1-2-93.
6. _____ . (1994) Criteria for excellence in departments. *University News* 3-10-94.

UNIVERSITY NEWS

A Weekly Journal of Higher Education

	Inland		Foreign	
	Institutions	Academics/ Students	Airmail	Surface Mail
	Rs.	Rs.	US$	US$
1 Year	220.00	125.00	140.00	100.00
2 Years	400.00	225.00	260.00	180.00
3 Years	600.00	325.00	380.00	260.00
5 Years	800.00	500.00		

Single Copy : Rs. 7.00

Subscription is payable in advance by Bank Draft only in favour of Secretary General, Association of Indian Universities.

Advertisement tariff available on request.

Address Subscriptions & Enquiries to :

Deputy Secretary (Publications)

Association of Indian Universities

AIU House, 16 Kotla Marg,

New Delhi-110002.

Telex: 31-66180 AIU IN Fax 011-3315105 GRAM: ASINDU

Time Management of College Teachers

SOME ISSUES

Meena Hariharan*

The University Grants Commission as per the recommendations of Sen Committee prescribed 40 hours of workload per week for teachers. This is a broad norm for teachers of undergraduate and post-graduate classes. This includes teaching, preparation for teaching, conducting examinations, tutorials, laboratory work, research work, supervision of extra & cocurricular activities and other administrative responsibilities. In short, during this 40 hours a college teacher is expected to discharge four fold responsibilities i.e., teaching, research, administration and extension services.

In a group discussion on "Status of Higher Education: Contributions of Teachers", a teacher observed: "The employees of other public sectors are enjoying: the college teachers are also human beings. Why should we not have time for ourselves?" This observation of a young teacher triggered a few questions.

Is 40 hours sufficient for a teacher to discharge these duties? Is the prescription of UGC reasonable? Do our teachers have to carry home an extra load of work every day?

Though it may appear at the outset that a teacher will have to sail on four boats simultaneously, it is not really so. Because, teaching, research, administration and extension work are so closely integrated that they can reinforce each other in order to enhance teacher efficiency. This certainly needs good planning. Perhaps, what the young teachers of today lack is skills of time management. How efficient are our teachers in managing their time to optimise their professional efficiency? This question prompted the author to inquire into the time logs of college teachers. This paper shares the preliminary findings. Further analysis of data is in progress.

Method

Objective : The objective of the study was to examine the relative time allocation of teachers to academic, personal and social activities.

Sample : Fifty three teacher participants who had come to attend the XXVII Orientation Course at Academic Staff College of University of Hyderabad constituted the sample. They represented eight different states of the country. The experience of these teachers ranged from a few months to 8 years. Out of fifty three, five members had to be dropped from the sample due to incomplete data. The sample size thus was 47 young college and university teachers from various parts of the country.

Procedure : The teacher participants of XXVII Orientation Course were given the time sampling proforma on the first day of the course. The design of the proforma was very simple. It contained sixteen rows and three columns. The rows indicated time break-ups of one hour each starting from 6 a.m. to 10 p.m. The three columns were named day 1, 2 and 3. The instructions were very simple. The teachers were requested to recall and register their activities for every hour on the last three working days before they started their journey to Hyderabad to attend the Orientation Course commenced on January 2, 1995.

Tabulation

The responses were scrutinized and classified under nine heads viz.

(i) Academic Activities :

Activities like (a) teaching, (b) preparation for class, (c) library reference, (d) research activities were brought under this head.

These activities were seen as directly helping personal and professional development.

(ii) Academic Related Activities :

Activities like (a) Invigilation, (b) Examination paper setting (c) Paper/record corrections (d) Other administrative responsibilities.

(iii) Personal Activities :

All activities for personal/family upkeeping such as (a) daily routine activities like bathing, eating etc. (b) spending time with family such as playing with children, household activities, outings, shopping etc ... were classified under this head.

(iv) Travel :

Time spent on travelling to or from work place or

**Academic Staff College, University of Hyderabad, Hyderabad-500 046.*

any other place was brought under this head.

(v) Watching TV or Light Reading :

Watching T V, going for movies, or reading newspaper, magazines, etc. came under this category.

(vi) Rest :

Resting during the day time (excluded from extended night's sleep) was included here. Resting in the afternoon or early evening on return from work mainly constituted the time under this category.

(vii) Socializing :

Time spent on visiting others, entertaining guests or attending parties, functions, etc. were accounted as socializing time.

(viii) Private Tuitions :

The time spent on teaching outside the college hours for commercial purposes was brought under this head.

(ix) Other Activities :

All other activities that did not come under any of the above, or activities of any one hour chunk that could not be recalled came under this last category.

The mean time allocation of the 16 waking hours per day was found for each individual teacher. Then the mean time of 47 teachers for each category was found and expressed in terms of hours and minutes. The results are presented in the Tables 1 & 2.

Results & Discussion

In Table 1, row 1 presents the mean time allocation of the 16 hours of a typical day under the nine heads. They depict the time allocation of an average teacher on a typical working day. In Table 1, *Section A* provides the comparative picture of teachers with varying length of experience in the profession. *Section B* presents the time allocation of teachers with a difference in workload. Finally, *Section C* reveals the average time spent in various ways by teachers having additional responsibilities and those without additional responsibilities.

Table 2 gives a comprehensive picture of time management of a young Indian college teacher. This table provides a rough idea of how an average college teacher manages his waking time and splits it as (a) Academic time, (b) Personal/Family time, and (c) Social time.

Combination of two or more categories in Table 1 helped arrive at these three broad heads. The first two columns and column 8 i.e., Academic and Academic related activities and Private Tuitions respectively together constituted Academic time. Columns 3,4,5,6 and 9 combined constituted Personal/Family time and column 7 i.e., Socializing alone stood for social time.

It is observed from Table 2 that the mean personal time of the teachers ranges from 4 hours 50 minutes (for teachers with an additional responsibility to 5 hours and 52 minutes (for teachers with a workload of less than 20 hours per week) for teachers belonging to various categories, while the mean personal time ranges from 9 hours and 24 minutes (for teachers having additional responsibilities) to 10 hours and 25 minutes (for teachers without any additional responsibilities besides teaching). On the other hand, the social time for teachers of various groups showed a range of 40 minutes (for teachers with more than 5 years of experience) to 1 hour (for teachers with 0-5 years of experience).

It is evident from the results that the personal time log is relatively high for the college teachers. Examining the mean time log for all the 47 teachers (row 1 of Table 2) the academic and personal time log for college teachers is a little less than 1:2. While the mean academic time of 47 teachers is 5 hours and 25 minutes per day, as per the UGC prescribed time of 40 hours a week it ought to be 6 1/2 hours to 8 hours per day in a six day and five day schedule of the week respectively. Paradoxically 50% of teachers of this study, whose workload was less than 20 hours per week reported to be spending 5 hours and 52 minutes (about 6 hours) per day in academic activities. Even this time log falls below the UGC stipulated time.

These results need not necessarily have negative implication on our teacher efficiency. Majority of our college teachers have adequate motivation and competence. But perhaps what is lacking is a sense of professionalism and the skills of time management.

A true professional is one who has the following three basic characteristics :

1. A positive role identity, and a high job satisfaction that he derives after he accomplishes the work as it 'ought to have been done'.

2. Pride in his profession, and enjoys working in the institution he belongs to. It is certainly true that the working conditions of many colleges are far below the satisfactory level.

3. Effective allocation of his time for his/her professional development as well as that of his institution. In other words, an efficient management of time makes a good professional and vice versa.

A teachers' academic time reflects his/her ac-

countability. If teaching profession is unique in self accountability, all teachers must measure the same by examining their own daily/weekly/monthly time logs. That may not only provide a clear picture of their academic efforts and efficiency, but also help them identify their time wasters, and plan the time more effectively. This, in turn, would result in improving the 'effectiveness quotient' of teachers, paving the path towards better professionalism.

Time management, thus is the reflector to accountability as well as a yardstick to measure professionalism. But time management is a skill, to be learnt and practised. If it is desired that the teachers of higher education attain a better sense of professionalism, and accountability, they should be trained in time management skills. The ASCs in their training programme should allot an exclusive chunk to train the teachers in effective time management. This would go a long way justifying the role of ASCs in promoting professional development.

Secondly, Rastogi Committee examining the pay scales of teachers of higher education must lay necessary stress on extensive studies on time management of college and university teachers for a reliable feedback on the real workload of teachers. However, the method of data collection may be further refined. Instead of relying on recall method, as in this study, the teachers may be sent the proformas early and asked to maintain the diary a week before they come for the Orientation/Refresher Courses. The data can be easily collected through ASCs imparting training programme to college teachers. The University of Hyderabad's Academic Staff College has already tried and reasonably succeeded in sensitising the participants on the need for learning at least some plan to manage the time available for the teachers effectively.

Table 1: Mean Time Log of College Teachers During the Major 16 hours Waking Time.*

Row	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9***
1. All Teachers (n=47)	3.08	1.57	5.18	1.28	1.48	0.31	0.44	0.10	0.30
Section A : Time Log of Teachers with Varying Length of Experience									
2. 0-5 years of experience (n=21)	3.10	2.15	4.55	1.50	1.40	0.30	1.00	0	0.40
3. More than 5 years of exp. (n=26)	3.24	1.52	4.57	1.29	2.09	0.33	0.40	0.27	0.25
Section B: Time Log of Teachers with Varying Workload									
4. Less than 20 hrs. of work/week (n=24)	3.23	2.15	4.43	1.33	1.55	0.38	0.47	0.14	0.36
5. Workload of 20 hrs. or more/week (n=23)	3.14	1.42	5.45	1.26	1.52	0.28	0.55	0.11	0.27
Section C: Time Log of Teachers with/without Addl. Responsibilities									
6. Teachers with responsibilities besides teaching (n=23)	3.06	2.25	5.33	1.26	2.00	0.20	0.50	0.15	0.05
7. Teachers with no additional responsibilities besides teaching (n=24)	3.22	1.28	5.44	1.33	1.40	0.45	0.45	0.00	0.45

* The mean time is expressed in terms of hours and minutes

**1. Academic; 2. Academic Related; 3. Personal; 4. Travel; 5. T.V. Watching/Light Reading; 6. Rest; 7. Socialising; 8. Private Tuitions and 9. Other Activities

Table 2: Mean Time Log of Teachers for Academic, Personal and Social Activities During the Major 16 Waking Hours (from 6 am to 10 pm)

	Academic Time	*Personal Time*	*Social Time*
1. All Teachers (n=47)	5.25	9.56	0.44
Section A: Time Log of Teachers with Varying Length of Experience			
2. 0-5 years of experience (n=21)	5.25	9.35	1.00
3. More than 5 years of exp. (n=26)	5.43	9.33	0.40
Section B: Time Log of Teachers with Varying Workload			
4. Less than 20 hrs. of work/week (n=24)	5.52	9.25	0.47
5. Workload of 20 hrs. or more/week (n =23)	5.07	9.58	0.55
Section C: Time Log of Teachers with or without Additional Responsibilities			
6. Teachers with responsibilities besides teaching (n=23)	5.46	9.24	0.50
7. Teachers with no additional responsibilities besides teaching (n=24)	4.50	10.25	0.45

THE BASIC MEAT

Shri L.M. Thapar, Chairman and Managing Director, Ballarpur Industries Ltd., delivered the Convocation Address at the ninth convocation of Indian Institute of Management, Lucknow. He said, "The basic meat of the job and the scope that it provides to enhance one's professional capabilities is what we tend to overlook in our youthful enthusiasm and craving for a cushy assignment in a prestigious international company or for that matter, in a fancy foreign financial institution. We become oblivious of the job content in the glitter of the calling card. How do you assess whether the content of a job is substantial enough to intellectually and professionally stimulate you? How do you decide whether your brain cells will rust and die in the work environment that you are going to become a part of, or grow and flourish? For that you will have to understand the role that you have to perform in the company in question very carefully." Excerpts

Let me point out a home-truth about getting into a job. A job is not something which affords you the inviting prospect of settling down comfortably into a plush office room, but opens up endless new vistas of challenge and opportunity. Given your anxieties today, you may tend to see the bagging of a plum job as the end of a quest. Depending on the company that you manage to get into, you may even lull yourself into thinking that you have arrived. But let me tell you that your getting into a job is only the beginning of a new journey and a new quest for achievement; a search and an effort to actualise your professional managerial potential.

I hear and I read that there is a real scramble in the campuses of prestigious management institutions like yours for megabuck offers, preferably in one of the well-known multinationals. I have nothing against multinationals. And I have nothing against anybody offering bright young managers big money either. What I will urge you to pause and consider is whether the worthwhileness and challenge of a job offer can be evaluated only in terms of the remuneration tag that it carries. Should a management postgraduate envy his classmate merely because the other person has managed to get a job that will give twice as much money? Should we all queue up before the foreign financial institutions, and jump into them at the very first opportunity? I hear that when companies come to these campuses for what you call pre-placement presentations and talks, students persistently question in detail about the compensation package and of the components that are fitted into it. What is the actual cash in hand, what is the national income? Will I get a two-wheeler on the house, or will the company just give me a fat conveyance allowance ? Will I get a certain quantum of house rent or will the company take the responsibility of getting me accommodation? There is a veritable plethora of questions along these lines that corporate presenters have to face in your classroom.

I am not for a moment denying that these are genuine concerns. By all means, ask these questions and plenty more about the kind of money the company in question is prepared to fork out for you. All that I am saying is, please also take care to understand in some detail the kind of job content that a company will provide you when it offers you a certain designation and a certain salary. The designation may sound fanciful and may capture the imagination of your classmates and your parents. The package may be unbelievably hefty. But if the job content is not going to be mentally and managerially challenging for you, the assignment will not professionally add value to you. Ultimately you have to try to add value to yourself by adding value to the business of the company that you work for.

The basic meat of the job and the scope that it provides to enhance one's professional capabilities is what we tend to overlook in our youthful enthusiasm and craving for a cushy assignment in a prestigious international company or for that matter, in a fancy foreign financial institution. We become oblivious of the job content in the glitter of the calling card. How do you assess whether the content of a job is substantial enough to intellectually and professionally stimulate you ? How do you decide whether your brain cells will rust and die in the work environment that you are going to become a part of, or grow and flourish ? For that you will have to understand the role that you have to perform in the company in question very carefully.

You have to look at the profile of the company. You have to understand the importance of the function that relates to your professional specialisation in the com-

pany. You have to understand the activities that you have to perform on a daily basis in the company. Will your role in that company have enough meat and challenge in it? Is it varied enough not to stale too quickly? Does the company have a strait-jacketed culture, in which you are hermetically sealed in a watertight professional compartment? Or does the company offer you a creative working environment in which you are free to learn and grow, to innovate and create? Does the company say, "Thus far and no further", or will it help you to reach out personally and professionally? It was poet Robert Browning who wrote, "A man's reach should exceed his grasp, or what's a heaven for?" Will the company allow you to take decisions? Will the company give you the right to make mistakes? Or will you be a mere implementing authority, a ceremonial rubber-stamp? Will your job be to do or die? Or will you get the freedom and the mental space to grow and become the hero in the strife? I will urge you that, in the final analysis, it is better to look for real job value rather than a career brand-name.

The celebrated management Guru, Tom Peters, offers an interesting suggestion for choosing a job or choosing a change of job in one of his recent books. To jump for a high or higher salary is the easiest thing on earth. It is to a certain extent like using the price of a product as a brand-positioning statement. You price your product high to convey the message that yours is an exclusively positioned product. But we forget that price is an important indicator of the positioning of a product only for a consumer who cannot discern quality. He, therefore, blindly and automatically takes it for granted that just because the price is high the quality must be undoubtedly superior.

What Tom Peter says is that you must choose a job which offers you the widest learning experience. The management Guru writes that even if you have to get a cut in salary when you are changing a job, by all means do it. Take a cut to get into a job that offers you a wider exposure and a more difficult challenge to enable you to learn. It, therefore, saddens me to see that generation after generation young managers and technocrats are looking at a job purely as an earning proposition, not pausing to think about what you can make of your job, but going purely by the money you can make from it. I will urge you to look for an enriching job experience rather than mere personal enrichment. I will remind you that when you look for a job, you should actually be looking out for a creative mental space for a managerial mind to flourish; and not for museum shelf-space for a brilliant mind to become a fossil in.

I am sure that many of you, alert and aware as you are, have gone through a process of inner doubt and questioning in deciding your specialisation in management. I am sure you are even now racking your brains to figure out whether you made the right choice of your managerial speciality, be it finance, marketing, systems or whatever. A few years ago, marketing was the craze. Every bright management student opted for marketing. And the in-thing was to get into a company in the fast moving consumer goods segment. Today finance is the new buzzword. Number crunching is the name of the management game today. Every bright-eyed MBA is today looking to foreign financial institution as the Mecca of all managers. Getting into a FFI is today considered as prestigious as the civil services were regarded once upon a time.

I would like to venture a few observations in the context of the phenomenon of changing fashions in management specialisation. I think it is important for you all to know that the area of specialisation in the college campus is not at all going to be a limiting factor in your professional life. I know of simple graduates or engineers who have become personnel or finance heads in large companies. There are many instances of HRD professionals who have moved to and performed successfully in General Management. There are personnel professionals who have become marketing whiz-kids. I can give you any number of instances of this type. Therefore there is nothing preventing you from reaching out beyond the fold of your professional discipline and grazing in newer pastures.

If anything, I think that in the new liberalised and fiercely competitive business environment, managers with multiple skills and varied exposure will enjoy a special premium. Today it has become incumbent for every company to become lean and mean, if only to survive in the cut-throat marketplace. Traditionally flabby and large industrial houses are having to excise their fat ruthlessly. Every company worth its salt is having to run a fine toothcomb over its entire manpower list and make sure that every single person on the rolls is really essential to the business. If the concept of the welfare state has slowly yielded ground to a merciless market-driven economy, the concept of a company as a compassionate corporate citizen has also died a natural death. Today the bottomline is business. Today the

slogan is, perform or perish.

In this context, I think it is important for managers to hone their skills in more than the one field of their specialisation. Not only does that help a company provide you a varied and challenging job profile and thereby make for job satisfaction; it also helps the company employ one person instead of two or three. Every assumption is being questioned today. Do you need a full-time Secretary, purely as a status symbol, to proclaim to the outside world that you have arrived? Today many good companies would question that assumption. Why can't a manager operate his own computer and take a printout of a document that he wants? Why can't you dial your telephone yourself?

Today it would help a finance professional to be glued into systems as well. Today it would help a marketing professional to have an insight into production as well. No manager today can afford to loll in the ivory tower of an airconditioned office, blissfully oblivious of the outside world. You have to constantly evaluate yourself against a benchmark. Whatever is your functional speciality, today it will be immensely valuable for you to have a grasp of business issues and business realities. Every action and every decision of yours as a manager will have to be constantly seen and evaluated against the backdrop of value-addition to business.

Let me make it very clear that, in the final analysis, there are no simple and readymade guidelines on how to choose your career or your job. Ultimately you have to decide yourself. Management is all about decision-making; and if you are all aspiring to become ace managers, it is good to start off by first taking a considered decision about the kind of job and career that you want. Others like me can only point out some of the factors that you should preferably take into consideration.

However, it is useful to cultivate the habit of constantly thinking anew, to get out of your stereotyped habits of thinking all the time, to innovate and to create. For we are living today in an environment of ceasless flux, of constant change. Every day and every situation demands a new perspective and a new judgment. Today the ability to manage change is corporate India's primary concern. If that has to happen, and if our country has to successfully manage the transition to a market-led economy, our managers will have to increasingly become entrepreneurs. The technocrats of yesterday have widened their horizons to become the managers of today. The managers of today will have to widen their horizons to become the entrepreneurs of tomorrow.

Finally let us not forget the human side of management. If management means getting things done through people, managing human relationships is crucial to managing business issues. It helps to be sensitive to human feelings and failings while attempting to tackle business issues. Look at how you are reacting and responding to other people. Remember what the poet Henry Wadsworth Longfellow once said: "we judge others by what they have done; we judge ourselves by what we are capable of doing." Above all, bear in mind that the most important ability is to recognise the ability of others.

Excerpts from the Speech

by

J.L. Batra

Director, Indian Institute of Management, Lucknow

We have completed a decade of our existence. IIM Lucknow was set up in July 1984 by the Government of India as the fourth national Institute of Management with a view to help improve the management systems in the country through pursuit of excellence in management education, research, consultancy, and training. Starting its academic activities in 1985 from a rented premises with a modest intake of 30 PGP students, currently, we have an annual intake of 120 students. We moved into our present serene and beautiful setting, encompassing 185 acres of land, in April 1992. Once completed, it will provide one of the most modern and congenial learning atmosphere for its students and clientele from industry and government.

A "Perspective Plan" for the Institute entitled "Vision 1999" has been developed by us with a view to effectively contribute to the improvement in quality and delivery of management education. In the coming years we intend to create centres of expertise in the areas of (a) International Management; (b) Management of Technology (including Management of Information Technology); and (c) Computer Integrated Management. We intend to further strengthen our research and consultancy activities in the hitherto neglected and under-managed sectors like Health, Education, Entrepreneurship, Energy, Public Distribution System, and Rural Development including Agriculture. Already work has started for the launching of management programmes for international students.

Steps are being taken to further strengthen our teaching and research apparatus with a view to start pre-doctoral, doctoral and management teachers programme.

Postgraduate Programme : As in the past about 83% of the admitted students had engineering background. About 40% of the students have work experience of varied durations. The facility for educational loans was made available to all the PGP students of the Institute through Central Bank of India and HDFC. In all, 85 students of the Ist and 2nd year PGP availed the facility. 15% of the students benefited through the Institute's scholarships.

Management Development Programmes (MDPs) : The Institute has already organised 46 open MDPs, in-company programmes and workshops since April 1994. In-company programmes and workshops were conducted for organisations like Asea Brown Bovery, United India Insurance Company, Indo-Gulf Fertilizers, NTPC, UPSEB, Marie Stopes and Department of Health, Government of Uttar Pradesh. 580 participants representing senior IAS, IFS, district officials, information managers and senior executives from industries have benefited from these programmes. The Institute took the lead to organize management development programmes on "Total Quality Management in Library Services" for senior level library and information managers.

Research : The faculty undertook several socially relevant research projects in thrust areas like Entrepreneurship, Health Management and Rural Development. Under the IDRC project entitled "Market Research in the Utilization of Management Information in India", a quarterly abstracting periodical titled Health Management : Indian Contributions was started by the Library. Research projects in the areas of Software Project Management, Transport Fleet Management, Strategic Management in Entrepreneurial Firms, Forecasting Using Neural Networks, Portfolio Management were undertaken by the faculty.

Consultancy : Some of the important consultancy assignments included : U.P. Sodic Land Reclamation Project involving project management, MIS, implementation and monitoring, and socio-economic impact analysis; Documentation of Sex Education, Counselling, Research and Therapy; Strategic Management in Small Business and Audit of Regional Rural Banks in U.P. The sponsoring agencies included World Bank, UPLDC and International Council of Management of Population, Malaysia.

Library : The automation and networking programmes of the library received a big boost during the year in that the machine-readable On-line Public Access Catalogue (OPAC) was made available and a CD-ROM workstation was installed. An Institute's scheme for providing Library & Information Services for Business & Industrial Organisations, which was introduced last year, has been well received and a few organisations have already started availing the service. With a view to better serve the student community, the library timings were extended upto 12 mid-night.

Computer Centre : The computing resources were further augmented, during the year, by the addition of state of the art hardware and software. The E-mail service became operational and campus wide connectivity through LAN is under progress. Several in-house software were developed for computerization of PGP, Admissions and library operations.

Student Activities : *Innovision 1994*, a unique initiative by the students for organising an annual paper writing competition to commemorate the completion of a decade of existence of the Institute deserves a special mention. The theme of the competition was "Managing in a Changing Environment".

Under the Industry Interaction Programme launched last year, distinguished experts and practicing professionals were invited to the campus to deliver talks for the students and the faculty of the Institute.

The two professional groups, PRISM and SIGFI, which have made notable contributions in promoting studies in the areas of marketing and finance have functioned vigorously this year also. "IIMAGES", "INKSLINGER", and "IIMPRINTS" are some of the other student publications brought out this year. On the cultural front, the student body organised the annual cultural event *Manfest* on a much bigger scale. An Alumni directory giving comprehensive details was released on the occasion of Alumni Day.

Student Placement : The Institute has been able to achieve 100% placement for its students in the best of the industrial and financial companies in the country. About 70 reputed public, private and multinational companies showed interest in participating during the placement week. It is heartening to mention that in 3 days time 104 students had got jobs and we had to close out our placement early on the fourth day. The remuneration package for the students placed ranged from Rs. 97,000 to Rs. 4,25,000 per annum with an average annual salary of Rs 1,49,433. This represents an increase of 40% in average salary compared to last year. The number of jobs offered to each student varied from 1 to 4 and practically all the students got their dream jobs.

Workshop on Human Rights Education

A workshop on "Human Rights Education" was organized in New Delhi by the People's Union for Civil Liberties (PUCL), with the support of the National Human Rights Commission (NHRC). Members of various civil liberties groups, academics, educationists, representatives of the National Council for Educational Research & Training and the University Grants Commission and Members of the NHRC participated in the discussions.

Speaking on the occasion, the Chairman, NHRC Mr. Justice Ranganath Misra announced that the Commission would hold talks with States and sensitize them on the need of human rights education. He said that a model being developed by the NCERT could serve as a "standard" and provide a basis for action by the States. Observing that this was not a small job, as it involved educating 35 crore people at the school level, he sought the suggestions of participants in this regard.

Dr. Pal, Editor, PUCL Bulletin, who presented the theme paper at the workshop, underlined the need to consider as to how human rights education was to be imparted, what constituted its core and also what sources, tales, stories, songs and plays were to be drawn upon. He also suggested that besides formal education of human rights, non-formal education was necessary to bring about changes in basic institutions like the family, the school, the workplace, the Government, and in their conduct and norms of behaviour. Dr. Pal also stressed the need of appropriate training of teachers, who were expected to impart human rights education in the classroom.

According to Prof. Satish Saberwal of Jawaharlal Nehru University (JNU), social and communal conflicts in the country were some of the main sources of human rights violations and the best way of increasing respect for human rights lay in teaching people to resolve such conflicts peacefully.

It was suggested by Mrs. Vibha Parthasarathy, Principal, Sardar Patel Vidyalaya that one of the main reasons for the lack of respect for human rights was the colonial and feudal mindset which had grown over the centuries. The thrust of Human Rights education should be to help get over this mindset. She also emphasized that it was the teachers whose attitudes needed to be changed; they themselves needed to be trained before any useful human rights education could take place.

It was argued by certain participants that introducing human rights education as an additional subject or chapter in a textbook in schools would add to the burden of children who were already overburdened. Therefore, regardless of the level at which human rights education was introduced, it should not add to the academic load of children. Prof. Yogesh Tyagi of JNU suggested decentralized experiments at the school level and the formulation of a curriculum only after the pooling of experiences and resources.

It was also suggested by several participants that the curriculum should not be in the form of formal texts; rather, children should be exposed to understanding the realities of the society in which they lived and which resulted in human rights violations.

The Peoples' Union for Democratic Rights (PUDR) pointed out that the design of the courses on human rights should take into account the aim of the course, the audience and their content. It was of the opinion that the courses be designed not only for the educated middle class but also for the poor and working sections of the population, which had borne the brunt of attacks on democratic rights. On the content, it was suggested that it should enumerate the rights that people have against the state and also the recent history of the democratic rights movements and organizations.

The joint paper of PUCL & the Indian Social Institute emphasized the need of education on the "rights of children" with a view to sensitizing those whose rights were violated. It also called for educating middle and upper class children so as to sensitize them to those who were less fortunate than others. The Peoples' Rights Organization (PRO) favoured wide discussion and debate before the introduction of human rights education in schools and universities.

On the basis of the deliberations at the workshop, PUCL, in a communication to the Commission, suggested that it might not be a good idea to "rush through this programme" during the current academic year and that some more

intensive thought needed to be given to the matter. In particular, PUCL suggested the constitution of a follow-up mechanism of human rights activists, academics, the NCERT, the NHRC and others to continue an intensive interaction that could result in an eventual blueprint for human rights education.

Mechanics of Accreditation

The National Accreditation and Assessment Council (NAAC), an autonomous body of the University Grants Commission (UGC), has said that the mode of student enrolment, curriculum design and review, organisation and governance are some of the parameters by which higher education institutes across the country will be assessed.

Mr. Arun S. Nigavekar, Director, NAAC, said that the assessment council would initiate its activities with the accreditation of deemed universities, autonomous colleges and a few central universities in the current year.

However, the most important stage of the entire assessment process by the NAAC would be the institutional self-study which would be similar to the self-appraisal report. "This will bring the total participation of the faculty, management, students and the supporting staff in assessing the performance of their own college," he said.

This exercise would be a truly participatory process wherein students' views would form an important base for the accreditation, Prof Nigavekar said.

The self-study report would then be analysed in-house by the NAAC staff, to check whether it was in accordance with the guidelines, and secondly, to see if a comprehensive approach was emerging to maintain quality.

An on-site visiting team comprising persons of high repute in the field of teaching and research, finance, educational administration and professional bodies or employers would visit the institution to deliberate on the working of the institution.

Prof Nigavekar said that the report of the on-site team and the self-study report would be studied in detail and would be compared. "If there are any differences between what the management has said and what our team has seen, this would be clarified", he added.

The report would restrict itself to analysis of facts, identification of strength and weaknesses of institutions and refrain from passing any value judgements or comments on individuals, he clarified.

The entire information would be passed on to the chairman of the on-site visiting committee, who would submit the final report to the NAAC.

He said that the executive committee of the NAAC would review the work of the site team and make recommendation before taking a final decision on the accreditation.

According to Prof Nigavekar, the institution will not be forgotten after that. A year and a half after the decision of the NAAC, the institution will be asked for a statement of the action taken by it, in response to the suggestions of the NAAC. "We are here to build confidence and credibility of the institutions," he added.

But what remains to be seen is whether institutions would come forward to accredit and assess themselves since it is an entirely voluntary process.

Chairperson of the University Grants Commission Prof. Armaity Desai also hinted at the inauguration of the NAAC that there was a possibility of the NAAC ending up like the UGC without "teeth", if there was no push factor for institutions to offer themselves for accreditation.

However, many experts were in support of accreditation being voluntary, at least in the initial stages, considering the milieu of higher education in India.

According to Prof Nigavekar, accreditation has assumed greater significance today because of two main reasons. First, the mind boggling expansion of institutions and the winds of globalisation will also affect the higher education system. Hence, the concept of supporting the education through public and private resources was gaining strength and would be a reality in the near future, he noted.

The National Policy on Education and the Programme of Action, 1986 which was revised in 1992 had enunciated that for maintenance of quality of higher education, the UGC would set up a mechanism to assess and accredit institutes of higher education.

BIET Convocation

Mr Motilal Vora, Governor of Uttar Pradesh, exhorted the new graduates of Bundelkhand Institute of Engineering and Technology (BIET) to extend full contribution in building the society and the country through their technical knowledge. He was presiding over the first convocation function of the institute held recently.

Mr Vora said that the need of the hour was to promote employ-

ment-oriented technical education alongwith general education, so that unemployment could be removed and the country could secure respectable place among all nations of the world.

He said that the plan outlay of science and technology department which was Rs. 140 crore in 1991-92, had been increased to Rs 225, in order to promote technical education.

On this occasion, the Chief Minister, Mr Mulayam Singh Yadav, laid foundation stone of civil engineering block being constructed at a cost of Rs. 1.75 crore.

Mr Yadav called upon the new graduates to contribute in the development of the country. He said that casteism was a blot and it created hurdles in the way of development.

He said that the progress of country was possible by following ideals and policies of Gandhiji and Lohia.

Mr Yadav said that due attention should be paid on mother tongue to strengthen the state and the country.

He said that inferiority complex had been created among countrymen by giving importance to English education.

The principal secretary, technical education, Mr VS Lali, said that engineering and technical knowledge influenced both the human development and environment.

The Vice-Chancellor of Bundelkhand University, Mrs Satyawati Rahgir, in her address, reviewed the progress of the university.

The governor presented degrees to 57 graduates of bachelors of engineering, electronic and instrumentation engineering of 1993 and 94.

DU to Raise Resources

The Delhi University is reported to have decided to raise resources through sponsored research, patent rights and consultancy services to meet the financial crunch it is facing.

In a written reply, Deputy Human Resource Development Minister Ms Selja said in the Rajya Sabha that a suggestion to this effect had been accepted by the university's executive council.

However, she said certain safeguards would be put in place to make sure that nothing was done at the cost of the autonomy of the university and that there was no compromise on the quality of education.

She said that 80 per cent of the proceeds generated by these means could be retained by the department earning it with 20 per cent being put in a common endowment fund for other departments to share.

IGNOU Convocation

Union Human Resource Development Minister Mr. Madhavrao Scindia urged the Indira Gandhi National Open University to further relax its entry barriers and admission procedures by introducing greater flexibility in basic admission requirements. Removal of pre entry qualifications for courses and round the year enrolment, instead of once a year, needed to be looked into, he added.

Mr Scindia, delivering the sixth convocation address in New Delhi recently, said he had asked the Department of Education to prepare a plan for a 24-hour dedicated educational channel which could cover all levels of education, including adult literacy, primary, secondary and collegiate education, language courses and vocational courses and information on job opportunities.

The process of distance education ultimately depended on the optimal use of the electronic media for constant communication with the end users of the university services, he said.

On Feb. 23, 1995, Prime Minister Mr. Narasimha Rao had dedicated to the nation a satellite-based development and education telecast facility network with the ISRO Earth Station which was already at the IGNOU Campus, he said. Optimal use of this facility should be ensured by the University as scarce resources had been put into these at the expense of other pressing demands, he added.

Mr Scindia said that with financial assistance of more than Rs 68 crore from the Japanese International Cooperation Agency, IGNOU had acquired a formidable array of hardware for programme production. The central programme production facilities of IGNOU were in 'live' contact with the regional centres of the university across the country. "I do hope that this two-way audio-video contact, apart from meeting the managerial needs of the university, is also deployed for the benefit of students who can avail of this at the regional centres."

Congratulating the 9,246 students who received their degrees and diplomas, Mr. Scindia wished them every success in their professional and personal lives. He said, "this is a rare moment indeed, where proud children can witness their parents and elders receive their degrees and diplomas".

The Union Minister also called upon all states to immediately

make functional an open university in their respective states. He said that presently, 200 universities in the country could take care of only six per cent of those eligible for higher education and this was where IGNOU was playing a vital role with more than two lakh students on its rolls.

It was heartening, he said, that IGNOU had made considerable headway in generating internal resources by adopting a differential fee structure depending on the nature of the courses and by marketing some of the educational softwares developed by the university. It was hoped that IGNOU would be in a position to meet most of its non-developmental expenditure from the next plan period, he added.

In his report, the Vice-Chancellor of IGNOU, Prof Ram Takwale, announced that the university would launch a number of new programmes next year.

PG Course in Edl & Vocational Guidance

National Council of Educational Research and Training (NCERT) has so far trained nearly 850 professionals in educational and vocational guidance. For this it has been running a nine-month full-time programme every year. The 34th course in the series which concluded recently in New Delhi attracted about 34 students from Andhra Pradesh, Delhi, Gujarat, Haryana, Karnataka, Maharashtra, Meghalaya, Mizoram, Orissa, Punjab, Tamil Nadu and Uttar Pradesh.

The admission requirement for the postgraduate programme is master's degree in education or psychology. The programme included theoretical and practical training for offering guidance services to school students and those seeking careers.

The theory course consisted of various aspects like (1) Principles & Procedures of Guidance; (2) Counselling; (3) Human Adjustment; (4) Career Development; (5) Measurement, Evaluation and Basic Statistics; and (6) Occupational Information in Guidance.

As part of the group guidance practice, the trainees delivered talks on topics of interest to students which would be helpful to them in career planning. They also learnt how to administer psychological tests, including intelligence tests.

The professionals trained by NCERT so far have been working with schools or bureaux of guidance or teaching guidance and counselling in university colleges.

Degree Course in Korean

Jawaharlal Nehru University is reported to have decided to introduce a three-year degree course in Korean from the forthcoming academic session, begining July. With this, JNU will become the first university in South Asia to start a full-fledged degree course in Korean. Till date, JNU has been offering a part-time Certificate/Diploma course in Korean.

According to university sources this decision has been taken to meet the growing demand for Indian experts with a knowledge of the Korean language. This market has been created in recent years courtesy the expanding economic and commercial relations between India and Korea.

To introduce the language course in this academic session itself, the authorities have decided to include B.A. (Hons) in Korean as an additional option to those who have already applied for admission to B.A./M.A. programme in foreign languages in the School of Languages.

Dalit and Feminist Trends in Indian Literature

North Zone Cultural Centre, Patiala, in collaboration with Deptt. of Youth & Culture, Kurukshetra University, recently organised a three-day National Symposium on 'Dalit and Feminist Trends in Indian Literature'.

Inaugurating the symposium, Prof. Bhim S. Dahiya, Vice-Chancellor, Kurukshetra University, dwelt upon the social themes in literature. He said that all good literature in any language of the world focused on human sufferings and yearns for human liberation from any kind of bondage. He gave illustrations from English Literature, particularly from Shakespeare's writings to emphasis upon humanist tradition of literature.

Dr. Chaman Lal, Co-ordinator of the symposium, presented the theme paper entitled 'Indian Literature focussing on Dalit & Women : A Search for healthy Democratic Values'. He underlined the fact that right from the inception of Indian Literature, from first Indian poet—Balmiki, Dalit life had been depicted by various Indian writers. In Medieval Literature Kabir, Ravi Dass, Namdev like saint poets depicted Dalit sufferings. Akka Mahadevi (Kannada), Lal Deo (Kashmiri) and Mirabai (Hindi) depicted women's condition in medieval Indian literature.

Dr. Chaman Lal traced the tradition of contemporary Dalit Literature. He mentioned Daya

Pawar, Lakshman Mane, Laxman Gaikwad, P.E. Sonkamble, Sharan Kumar Limbale, Babu Rao Bagul, Arjan Dangle (All Marathi), Jayant Parmar, Harish Manglam (Gujarati) Sidhlingayya (Kannada), Prem Chand, Jagdish Chander (Hindi), etc. as pioneers of Indian Literature focussing on Dalit issues. He also referred to the common sufferings of Dalit and Women in Indian society. He mentioned Qurrat-ul-ain-Hyder, Ismat Chugtai (Urdu), Krishna Sobti, Mannu Bhandari, Mrinal Pandey (Hindi), Amrita Pritam (Panjabi), Indira Goswami (Assamese), Ashapurna Devi, Mahasweta Devi (Bengali), Kamla Dass, Sugatha Kumari (Malyalam), Rajamkrishnan (Tamil), etc. as enlightened women writers.

Eleven scholars/creative writers from all over the country and representing different languages presented their papers at the symposium. These included (i) Indian Literature focussing on Dalit and Women Life : A Search for healthy democratic values; (ii) Intenstitial Statements : Beyond Polarities and Power Structures; (iii) Sex, Text Politics : Women's Writing in India — Problems of Reading; (iv) Contemporary Feminist Writing : Some important questions some basic problems (Hindi); (v) An Indian Feminist with Small 'f' : Family and Feminic sexuality in the Novels of Krishna Sobti; (vi) Feminist writing in Punjabi : Problems and Perspectives; (vii) Allegory for the Interface : Some Notes on Krishna Sobti's *Dilo Danish;* (viii) Indian Dalit Literature (Hindi); (ix) Gujarati Dalit Poetry (Hindi); (x) History of Dalit Literature; and (xi) The Dialogic Imagination : Modern Marathi, Dalit Writing.

A Panel Discussion focussing on 'Dalit and Feminist Perspectives: Problems and Potentials' chaired by Prof. I.N. Chaudhary, Secretary, Sahitya Akademi, New Delhi was also held at which creative writers presented their views.

Prof. O.P. Grewal, Dean Academic Affairs of Kurukshetra University, in his valedictory address, underlined the fact that both themes of contemporary Indian writing had been projected in proper and balanced perspective and serious discussion had taken place, giving much thought to the scholars and writers.

During the Symposium, a film 'Diksha' focussing both on Dalit and Women questions in a very sensitive manner, was exhibited.

GRI Convocation

A call to the students to develop a harmonious and reciprocal relationship with society and the environment was given by the Chancellor of the Avinashilingam Institute for Home Science and Higher Education for Women, Dr. Rajammal P. Devadas, while delivering the convocation address at the 15th convocation of the Gandhigram Rural Institute (GRI) held recently in Gandhigram.

The Chancellor, quoting from the report of the Inter-Governmental Committee of the World Decade for Cultural Development, said, "Development is all too often being pursued as modernisation patterned after a particular dominant design, while in fact, there is a need for multicultural or pluralistic conception in which different ways of living, different beliefs, systems and values are accommodated to reach the ultimate goal of various communities."

She said consumerism treated man as a purely materialistic being and proposed to him that nothing mattered except acquisition of wealth. It did not help people to bring out the sense of cooperation, brotherliness, self-sacrifice, peace and harmony. Consumeriam also injected into the minds of the young that the spirit of violence, domination, undue competition and hatred were to be valued and pursued vehemently. Self-restraint, adherence to truth, non-violence, thirst for justice, service for the society and dedication were considered out of place and, sometimes, even as signs of weakness.

Dr. Rajammal said Mahatma Gandhi's socio-political philosophy consisted in the evolution and establishment of an ideal democratic society where every individual's life was self-regulated and self-disciplined and where one aimed at cultivating moral virtues. He looked upon education, she added, as an instrument of socio-economic progress, material advancement, political evolution and moral development for the individuals. Gandhiji wanted a reorientation of the Indian education system so that it de-emphasised the material aspects of life and re-emphasised the spiritual aspects.

Dr. T.R. Natesan, Vice-Chancellor, who presided, said in order to promote research at the Ph.D. level the GRI had created a Student Welfare Fund with Rs. 12 lakh to pay scholarships to the non-JRF candidates. The amount would fetch an annual interest of Rs. 1.7 lakh which would support 19 full-time Ph.D. scholars. He called upon the graduates to continue the same qualities of hard work and disciplined effort imbibed at the GRI in future also.

Degrees, diplomas and certificates were given away to 501 candidates on the occasion.

Sukhamoy Chakravarty Chair

Jawaharlal Nehru University (JNU) is reported to have instituted a "Sukhamoy Chakravarty Chair in Economics" to promote studies and research in planning, development and related issues.

According to a JNU sources, the Planning Commission has already provided a grant of Rs 40 lakhs for creating an endowment.

The university would select a professor of outstanding merit to hold the chair and a five-member advisory committee would be constituted under the JNU Vice-Chancellor to provide guidance to the work and management of the unit.

News from Agricultural Universities

Focus on Farmers

The Vice-Chancellor of the Y.S. Parmar University of Horticulture and Forestry, Prof L.R. Verma, stressed the need for strengthening teaching, research and infrastructural facilities in the institution. He said henceforth the focus would be on the farmer, his fields and his needs.

Professor Verma, who has recently joined the university, said an action plan for ginger and peach had been formulated, laying stress on eradicating various diseases affecting these two crops. Whatever research had been done in the university, would be passed on to the farmers through kisan melas and special camps.

The university had recently released four cultivable varieties of apple, three of pear, two of peach, three of almond and one each of mushroom and pear. Two krishi vigyan kendras had been sanctioned for Rohru and Sharbo in Shimla and Kinnaur districts, respectively. Steps were being taken to open two more such centres in the state.

The main problem in research and extension arose due to a paucity of funds, the Vice-Chancellor said and added that ever since he took over the reins of the university, Rs 4.78 crore worth of project grants had been sanctioned from the Indian Council of Agriculture Research (ICAR) and other national and international agencies. The university proposed to concentrate on high-yielding and better-quality fruits, vegetables, and flowers.

News from UGC

Countrywide Classroom Programme

Between 1st June to 15th June, 1995, the following schedule of telecast on higher education through INSAT-ID under the auspices of the University Grants Commission will be observed. The Programme is presented in two sets of one hour duration each every day from 6.00 a.m. to 7.00 a.m. and 1.00 p.m. to 2.00 p.m. The programme is available on the TV Network throughout the country.

Ist Transmission

6.00 a.m. to 7.00 a.m.

1.6.95

"Reflection on a Career in Polymer Chemistry"

"Introduction to Social Anthropology"

"Understanding Shelly - Part I : Theory of Poetry"

3.6.95

"Guitar Odyssey"

"Economic Thoughts of Karl Marx - Part 4"

4.6.95

"Form and Idea - Part II"

"Bookfare"

"The Week Ahead"

6.6.95

"Heritage India - Part 2 : Spread of Buddhism in Andhra Pradesh"

"Current Affairs : Economics and Commerce - Part 8"

"Yours Sincerely"

8.6.95

"Visit a Mineral Spring"

"Sculptural Heritage of Kanchipuram"

"Understanding Shelly - Part II : Ode to the West Wind"

10.6.95

"Popular Statistics"

"Economic Thoughts of Karl Marx - Part 5"

"Fish Culture and Breeding"

11.6.95

"New Horizons"

"Painting - An Introduction"

"The Week Ahead"

13.6.95

"Super Conductivity"

"Heritage India - Part 3 : Buddhist Art in Andhra Pradesh"

"Pharmacy in Modern India"

15.6.95

"Optical Repeaters"

"The Indian Tribes"

"Understanding Shelly - Part III : Ode to a Skylark"

(*Contd. on page 24*)

VOCATIONALISATION OF ED

COURSE OFFERINGS AT FIRST DEGRE

State	Name of the University ↓ / Course →	Advertising, Sales Promotion & Sales Mgmt.	Archaeology & Museology	Biological Tech & Specimen Preparation	Biotechnology	Clinical Nutrition Dietetics	Communicative English	Computer Applications
BIHAR	LALIT NARAYAN MITHILA UNIVERSITY							
	1 M.L.S. College, P.O. Saraab Panu, Madhubani	–	–	–	–	–	✓	–
	MAGADH UNIVERSITY							
	1 Gaya College, Gaya, Bihar	✓	–	–	–	–	✓	✓
	PATNA UNIVERSITY							
	1 Patna Women's College, Bayley Road, Patna, Bihar	✓	–	–	–	–	✓	–
	RANCHI UNIVERSITY							
	1 St. Xavier's College, P.B. 9, Ranchi, Bihar	–	–	–	–	–	✓	✓
	2. Jawahar Lal Nehru College, Chakradharpur, Bihar	–	–	–	–	–	✓	✓
	3 St. Columba's College, Hazaribag, Bihar	–	–	–	✓	–	✓	✓
MADHYA PRADESH	AWADHESH PRATAP SINGH UNIVERSITY							
	1 SGS Govt. P.G. College, Sidhi, Madhya Pradesh	–	–	–	–	–	–	✓
	2. Govt. Model Science College, Rewa, Madhya Pradesh	–	–	–	–	–		✓
	BARKATULLAH VISHWAVIDYALAYA							
	1 Govt. Gitanjali College, Bhopal, Madhya Pradesh	–	–	–	–	✓	–	✓
	DEVI AHILYA VISHWAVIDYALAYA							
	1 Holkar Science College, Indore, Madhya Pradesh	–	–	–	–	–	–	–
	2 Islamia Karimia College, Indore, Madhya Pradesh	–	–	–	–	–	–	✓
	JIWAJI UNIVERSITY							
	1 Ambah P.G. College, Ambah, Morena	–	–	–	–	–	–	✓
	2 Govt. Degree College, Datia, Madhya Pradesh	–	–	–	–	–	–	–
	3 Govt. Mahakoshal Arts & Comm. Autonomous College, Jabalpur	✓	–	–	–	–	–	–
	4. Govt. Model Science College, Gwalior, Madhya Pradesh	–	–	–	–	–	–	–
	RANI DURGAVATI VISHWAVIDYALAYA							
	1 M.L.B. Arts and Commerce Autonomous College, Gwalior	✓	–	–	–	–	✓	–
	2 Govt. Auto. M.K.B. Arts & Comm. College for Women, Jabalpur, M.P	✓	–	–	–	–	–	–
	3 St. Aloysis College, Jabalpur, M.P	–	–	–	–	–	✓	–
	4 Govt. Auto. M.H. College of Home Sc. & Sc for Women, Jabalpur, M.P	–	–	–	–	–	✓	✓
	5 Hitkarni Maha Vidyalaya, Jabalpur, Madhya Pradesh	–	–	–	–	–	–	–
	RAVISHANKAR UNIVERSITY							
	1 Govt. P.G. College, Jagdalpur, M.P	–	–	–	–	–	–	–
	2 Kalyan Arts and Comm. College, Bhilainagar, Madhya Pradesh	–	–	–	–	–	✓	–
	VIKRAM UNIVERSITY							
	1 M.V. Mahavidyalaya, Ujjain, Madhya Pradesh	–	–	✓	–	–	–	–

Source: University Grants Commission, New Delhi.

IN THE UNIVERSITY SYSTEM (7)

994-95 : COLLEGES (6)—NORTHERN REGION (2)

Foreign Trade Practices & Procedures	Functional Hindi	Functional Sanskrit	Geo Exploration and Drilling Technology	Industrial Chemistry (Seven streams)	Industrial Fish & Fishery	Industrial Microbiology	Instrumentation	Manufacturing Process	Office Mgmt & Secretarial Practice	Principles & Practices of Insurance	Rural Technology	Seed Technology	Sericulture	Still Photography Audio Products	Tax Procedures and Practices	Tourism & Travel Mgmt.
-	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	✓	-	-	-	-	-	-	-	-	-	-
-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	✓	-	-	-	-	-	-	✓	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	✓	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	-	-
-	-	-	-	-	✓	-	-	-	-	-	-	-	-	✓	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	✓	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	✓	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	✓	-	-	-

(Contd. from page 21)

IInd Transmission

1.00 p.m. to 2.00 p.m.

1.6.95

"Optical Fibre Communication - Part II"

"Remote Sensing in Natural Resources Inventory - Part I"

"A World of English - Part 4 : The Good Language Learner"

"A Career Oriented Graduation"

2.6.95

"Making of GMRT (Giant Meterwave Radio Telescope)"

"Health for All by 2000 A.D."

"Environmental Engineering : Secondary Waste Water"

3.6.95

"Variations on America - Part IV : Contemporary American Music"

"Bookfare"

"The Week Ahead"

4.6.95

No Telecast

5.6.95

"Electromagnetic Induction"

"Current Affairs : Economics and Commerce - Part 8"

"Yours Sincerely"

6.6.95

"Organic Reaction Mechanisms - Part II"

"Tryst '95 - Part II"

"P.C.N.L. : Telescopic Removal of Kidney Stone"

7.6.95

"Microwaves"

"Architecture - Light and Shadow"

"Perspective on Animal Experimentation"

8.6.95

"Remote Sensing in Natural Resources Inventory - Part II"

"Making of a Newspaper - Part I : Reporting"

"A World of English - Part 5 : Group Discussion - I"

9.6.95

"New Horizons"

"A Chance for Survival"

10.6.95

"Variations on America - Part V : The Garden of Eden"

"Speech Communication"

"East West Rhythms"

"The Week Ahead"

11.6.95

No Telecast

12.6.95

"Excitement of Pulsars - Part I"

"Hospital Management in India"

"Groundnut Production : Improved Technology for Higher Yields - Part I"

13.6.95

"Organic Reaction Mechanisms - Part III"

INDIAN INSTITUTE OF ADVANCED STUDY
RASHTRAPATI NIVAS, SHIMLA-171005
Advertisement No. 1/95

1. Applications on prescribed form are invited for award of Fellowships for the academic session commencing from April 1, 1996 from scholars holding Ph.D. degree who have experience of independent research at advanced level, in the following areas :
   HUMANITIES (i) Art and Aesthetics; (ii) Comparative Study of Literature, (iii) Religious Studies with emphasis on Comparative Studies; and (iv) Philosophy.
   SOCIAL SCIENCES . (i) Development Studies; (ii) Comparative Study of Political Institutions, and (iii) Socio-Economic and Socio-Cultural Formation in Historical Perspective
   NATURAL AND LIFE SCIENCES . (i) State Policies on Science and Technology, (ii) Science, Technology and Development, and (iii) Methodologies and Techniques
2. A few Fellowships may be awarded for projects of exceptional interest even outside these areas and also to eminent scholars not necessarily possessing research degrees
3. About two-thirds of the Fellowships will be earmarked for those who are already working in Universities, Research Institutions or other responsible positions Preference is given to those who have already done considerable work on their projects and wish to avail of the facilities at the IIAS to complete their work. The Institute does not encourage studies which involve field work
4. One Fellowship will be earmarked for scholars belonging to Scheduled Castes/ Scheduled Tribes The Institute encourages pursuit of research project relating to the problems of scheduled castes and scheduled tribes.
5. The selection of Fellows will not be restricted to those who respond to this advertisement. The Institute has the discretion to select Fellows in other ways as well
6. The detail of the amount of Fellowship grant payable to Fellows will be supplied along with the application form
7. The term of Fellowship ranges from three months to two years, depending upon the nature of the project. In exceptional cases, a Fellowship may be extended into the third year.
8. Residence at the Institute is compulsory from April to November, and optional from December to March All Fellows are provided free hard-furnished accommodation on the campus as well as secretarial assistance
9. The prescribed application form may be obtained from the O S.D. (Administration) of the Institute by sending a self-addressed envelope (25 cm x 10 cm) or personally from the Institute by June 30, 1995. The completed application form should reach the Institute latest by **July 15, 1995**. In the case of candidates living abroad, applications will be accepted upto **July 31, 1995**. Those in service should apply through proper channel.

davp 903 (1) 95

"Oxygen Radicals and Antioxidants - Part IV : In Ischaemia Reperfusion Injury"

14.6.95

"Fire Protection Technology"

"The Task of Map Making"

"Plasma Membrane - Part I"

15.6.95

"Artificial Intelligence and Cognitive Science"

"Making of a Newspaper - Part II : Reporting"

"A World of English - Part 6 : Group Discussion - II"

Hindi Telecast

प्रातः 6.00 से 6.30 बजे तक

2.6.95

"संगीत गणित – भाग–1"

"कथक एक परिचय – भाग–1"

5.6.95

"संगीत गणित – भाग–2"

"कथक एक परिचय – भाग–2"

7.6.95

"औद्योगिक क्षेत्र में मानवी सम्बन्ध भाग–5"

"प्रकृति के विजेता – सकुलेंट्स"

9.6.95

"युग दृष्टा सुमन"

12.6.95

"अनीता की कहानी – भाग–1"

"संगीत गणित – भाग–3"

14.6.95

"अनीता की कहानी – भाग–2"

"केकटस"

News from Abroad

Poor Gain in Chinese Reforms

Chinese education authorities are reported to have mapped out measures to help poor university and college students while promoting a unified tuition fee policy.

Zhang Tianbao, Deputy Minister of the State Education Commission, said the issue of poorer students would take top priority in forthcoming higher education reforms. He was speaking at a national seminar on financial aid for poor students in higher education recently.

They involve granting institutions full authority in managing a variety of scholarships arrangements.

It is suggested that central government adjusts the allocation of special scholarships to favour students of teaching, agriculture, forestry, ethnic studies, physical education and maritime studies.

The government is also to provide far more and better scholarships for students agreeing to fixed-term job-assignments after graduation, and the availability of student loans is to be increased.

According to Yang Zhoufu, a senior commission official, 50 million yuan (£3.8 million) is needed over the next four years in order to establish a sufficient student loan fund to cover the 330 universities and colleges run by the commission and other ministries. The commission is also preparing a tuition-waiver policy to prevent students having to abandon their higher studies through financial difficulties.

The so-called "self-financed" or "enterprise sponsored" policy, where institutions charged extra fees to students admitted with lower entrance exam scores, is to be wiped out by the commission's new unified-tuition fee policy.

Many of the institutions adopting the policy during the last year report increased enrolments from poor and rural areas, which was very encouraging said, Zhang.

Unified tuition fees range from 1,000 to 1,500 yuan (£77 to £115) per year.

Science Park of the Future

The heyday of the traditional science park could be over if the idea of the 'virtual' science park catches on, according to Ian Dalton, Director of Heriot-Watt University's research park.

Throughout the 1980s, science parks mushroomed across the university landscape, from two in 1981 (Cambridge and Heriot-Watt) to 46 today.

All told, they now house 1,200 companies employing 22,00 people, with an annual turnover of at least £1.4 billion.

Yet according to Mr Dalton, they have not been "a quick way to get rich", and they have not been hugely successful in transfering technology.

That is why science park specialists are dreaming up the science park of the future. It would have no capital-intensive property, preferring to project the university knowledge base via technology.

The virtual science park would allow dial-up access to all manner of data.

Mr Dalton said that it would be like the difference between holding a local library ticket and the British Library ticket "which gives access to an almost unlimited source of information".

Companies would benefit, especially small firms which might not be able to justify relocating to a science park.

So too would universities, because they would create a larger

pool of customers, "a floating virtual park tenant population, composed of external companies accessing its human and information resources on a transitory, dial-up basis".

They would also be able to team up with other national and international university science parks, acting as "intermediaries or technology brokers", which would improve their value to local customers.

A prototype is expected to begin at Leeds University, which is promoting the virtual science park model, and which is teaming up with other European universities, Heriot-Watt, Bristol, Amsterdam, Bari, Chalmers. Eindhoven, Ghent, Limerick, Patras and Trieste.

Australian Scholarships for 1996

The Australian Development Cooperation Scholarships (ADC-OS) program is being offered to 34 Indian Students for 1996. The programme earlier known as the John Crawford Scholarship Scheme, is jointly administered in India by the Ministry of Human Resource Development and the Australian High Commission Development Assistance Section.

A total of 34 scholarships are being awarded for 1996 for higher studies/research leading to Master/Doctoral degree. These scholarships are not admissible for post-doctoral studies. Half of the awards each year are earmarked for female candidates.

The awardees are selected by a committee of academics in India and their applications are forwarded to Australia for placement.

Australian universities are recognised internationally for the distinctive quality of their courses. Postgraduate awards, available throughout the Australian higher education system, reflect Australia's high level of research and training competencies in a broad spectrum of disciplines and studies.

Further details are available at the Australian High Commission, 1/50-G, Shantipath, Chanakyapuri, P.O. Box 5210, New Delhi-110 021.

National Institute of Educational Planning and Administration

17-B, Sri Aurobindo Marg, New Delhi-110016

Applications are invited for one post of Administrative Officer in the pay scale of Rs. 3000-100-3500-125-4500. Age and qualifications for the post are given below :

Age : Below 45 years

Qualifications :

Essential :

A Bachelor's degree with at least 5 years experience in administrative and establishment matters at the executive or supervisory level.

Note :

1. Candidates already in employment under government/semi-government organisations/autonomous bodies should send their applications through proper channel. In case of deputation/transfer of officers from central/state governments, universities, professional and research institutions and bodies, the person should be:
   a) holding analogous post on regular basis; or
   b) with 5 years regular service in the post in pay scale of Rs. 2200-4000; and
   c) period of deputation shall not ordinarily exceed 3 years.
2. Other things being equal, preference will be given to SC/ST candidates.
3. Candidates from outside Delhi called for interview will be paid single return second-class train fare by shortest route.
4. Candidates who had responded to earlier notification need not apply again but may mail any additional information and their availability, if they so desire.

Applications from candidates fulfilling the required eligibility conditions alongwith attested copies of certificates, a recent passport size photograph and a non-refundable crossed postal order of Rs. 20/- (not required in the case of SC/ST candidates) drawn in favour of the Acting Registrar, National Institute of Educational Planning and Administration should reach the Institute's address (17-B, Sri Aurobindo Marg, New Delhi-110016) latest by **15th June, 1995.**

O.P. Sharma
Acting Registrar

davp 1192/2/95

A Path-Breaking Enterprise

Meenakshi Mukherjee*

South Asian Love Poetry, Edited and with an Introduction by S.K. Sareen and Kapil Kapoor. New Delhi, Affiliated East-West Press, 1994. Pp. xxviii + 164. Rs. 150.

The nine countries covered in this unusual anthology range alphabetically from Afghanistan to Sri Lanka, and three quarters of the poems were originally written in English. The rest are translated from Bangla (3), Urdu (1), Malayalam (1) Chinese (8), Malay (3) and Tamil (3). Identifying a cultural region in terms of its poetic imagery and comparable attitudes to nature, religion and love is a challenging task, and the exercise of looking at these poems through *rasa, dhvani* and *alankara* theories, as the editors have attempted in the learned Introduction, is also something quite unprecedented. On both counts this volume is a path-breaking enterprise, countering the prevalent Eurocentric viewpoint that most English-knowing readers in India still continue to have.

Every anthology is shaped by an implicit critical perspective. What is stated in the Introduction and the unspoken assumptions evident in the selection here point towards two definite positions : the editors privilege the spontaneous and the emotional over the cerebral and the complex ("By common consent we value, not denigrate, sentiment") and they highlight the cultural unity of the region called South Asia, rather than its diversity. Both those positions may be contested by some readers and indeed they are rather debatable issues, but it is necessary for an anthology to have a definite agenda. There is thus a consistency in the selection — giving the volume a central point and a coherence, even if the reader may find this position controversial.

Those living in the temperate and polar zones of the world may not be so easily convinced about the "deep subliminal spirituality of the people in the tropics" which the editors claim, and even those living in the tropics may not necessarily agree with the editorial statement that the Pakistani poets "draw their imagery from the great past and mythology of the sub-continent. The Indian poets don't do it". But such differences may not totally take away the pleasure of reading some of the poems. While each reader will have his/her own favourites, Huang Shiru of Singapore and Taufiq Rafat of Pakistan were the discoveries I cherished most. Except for one or two new names not many of the Indian poets in this anthology are unfamiliar to us, but those from other countries contain many surprises.

Sometimes it is difficult to understand the rationale of the selection. In the Indian section Mahasweta Baxipatra is represented by six poems while A.K. Ramanujan by one. For lack of biographical information it is not easy to check if Adarsh Misra included in the India section is the Fijian-Indian poet of the same name who now lives in Australia. If he is the same, why is he listed under India? It would have added to the value of this volume if the editors had given us some biographical information about the poets, many of whom are unknown to us. Even the dates of birth might have helped us to locate the chronological context. (Such information might also have allayed incidental curiosities, e.g. why does Bangladeshi poet called Thomas Ansell write about daffodils and lilacs.) We hope that this anthology will be the first of many such attempts to acquaint us with the literature of our neighbouring countries, and the anthologies that follow will be more meticulous in their editorial apparatus.

*Professor, Centre of Linguistics and English, School of Languages, Jawaharlal Nehru University, New Delhi-110 067.

To Our Contributors

Contributors are expected to submit only original articles for publication in the *University News*. If an article is found to be plagiarised, it will be the sole responsibility of the contributor to face legal action, if any.

NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY

(An Institute of All India Council for Technical Education)

HATIA : RANCHI-3

POST GRADUATE PROGRAMMES (Commencing : 1st September, 95)

Applications are invited for admission to the following porgrammes :

1. **MASTER OF TECHNOLOGY (M.TECH) IN FOUNDRY - FORGE TECHNOLOGY**
   Eligibility : Bachelor's Degree in Mechanical/Metallurgical/Production Engineering OR equivalent with valid GATE Score.
2. **MASTER OF TECHNOLOGY (M.TECH) IN MANUFACTURING ENGINEERING**
   Eligibility : Bachelor's Degree in Mechanical/Metallurgical/Manufacturing/Production/ Electrical/Aeronautical/Chemical/Industrial Engineering with valid GATE Score.

For the above courses, in case of sponsored candidates who are fully financed by their employers, admission may be considered without GATE provided they have secured at least **60% (55% for SC/ST) marks** in aggregate in the qualifying examination. However, preference shall be given to the sponsored candidates who have qualified GATE examination. **Scholarship @ Rs. 1800/- P.M.** will be paid to the students admitted on the basis of their GATE Score.

Seats are reserved for SC/ST candidates as per rules. Application form and other details may be obtained separately for each course from **The Chairman, Academic Affairs, NIFFT, Hatia, Ranchi-834003 on payment of Rs. 60/- (Rs. 15/- for SC/ST candidates) by Demand Draft payable to "NATIONAL INSTITUTE OF FOUNDRY AND FORGE TECHNOLOGY" at State Bank of India, Hatia (Code No. 0207)** OR **Canara Bank, Hatia (Code No. 0183)** alongwith self addressed stamped (Rs. 6/-) envelope of size 28 cm x 16 cm superscribed with the name of the course.

Last date for receipt of completed application forms : 14th July, 95.

INDIAN INSTITUTE OF EDUCATION

J.P. Naik Path, 128/2, Kothrud, Pune - 411029

Applications are invited for the position of Director of the Institute from candidates having the following qualifications :

I **Required**

(a) Doctorate from recognised Indian or foreign university, in any of the Social Sciences or Education.

(b) About ten years of experience in teaching and research guidance at the postgraduate stage.

(c) Published research-work on education and development/educational polices/educational planning and management/comparative education from an interdisciplinary standpoint/similar areas related to educational and socio-economic change.

(d) **Age** : Between 45 and 55 years (relaxable in special cases).

II **Preferable** : Knowledge of Hindi/ Marathi (conversational).

III **Emoluments and facilities**

(a) **Salary** : According to UGC Scales

(b) **Facilities** : Two bed-room furnished flat in the Institute's premises (rent free).

IV Detailed Curriculum Vitae should reach the Member-Secretary, Indian Institute of Education, **before 30 June, 1995.**

THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities

BIOLOGICAL SCIENCES

Anthropology

1. Harashawaradhana. **Effect of mental retardation on human physical growth.** Delhi.

2. Harinder Kaur. **A study of ageing on morphological characteristics of working and non-working Khatri females.** Punjabi. Dr L S Sidhu, Prof, Department of Human Biology, Punjabi University, Patiala.

3. Jain, Kavita. **Effect of socioeconomic status on the physical growth and maturational sequences in different body segments among Jain females of Delhi.** Delhi.

4. Lakshmi, Neerukonda. **Microevolutionary genetic differentiation in three endogamous population of Andhra Pradesh.** Andhra

Environmental Sciences

1 Ahlawat, Jyoti Rani. **Modelling air quality in tropical coastal environment.** JNU. Prof B Padmanabhmurty.

2 Anuradha, H G. **Intramural aerobiological studies of different environs in Bangalore and their correlation with allergy.** Bangalore. Dr Shripad N Agashe, Department of Botany, Bangalore University, Bangalore.

Biology

1. Joseph, Mercy. **Synthesis and membrane association of hydrophobic peptides with covalently linked fatty acids.** JNU. Dr R Nagaraj.

2. Joshua, Kumpati. **Studies on biology of *Penaeus monodon* Fabricius and the biological effects of pesticides and heavy metals on its larvae.** Andhra.

3. Tharun, S. **Study of RNA turnover in mammalian cells.** JNU. Dr Ravi Sirdeshmukh.

Biochemistry

1. Kukreja, Rajani Nebhandas. **Effect of selenium deficiency on immune system of rats.** Nagpur. Dr Aqueel Khan, Department of Biochemistry, Laxminarain Institute of Technology, Nagpur.

Biotechnology

1. Roy, Nikhil Ranjan. **Yield component compensation in French bean.** Gauhati. Dr G Bhowmik.

Microbiology

1. Dave, Pratisha Pradyuman. **Optimization of process parameters for Ca-gluconate production by using free and immobilized microbes and enzymes.** Patel. Dr Datta Madamwar.

2. Khambe, Suhasrao Dnyandeo. **Role of microorganisms in the treatment of spentwash through aerobic composting.** Shivaji. Dr P L Patil, Department of Civil Engineering, Walchand College of Engineering, Sangli.

3. Sharma, Naresh Chand. **Taxonomical studies of the bacteriophages of *Salmonella bareilly*.** HP.

4. Venkat Swamy, M. **A study into maltose and malto oligosaccharides producing thermostable amylases from *Clostridium thermosulfurogenes* sv9.** Osmania. Prof G Seenayya, Department of Microbiology, Osmania University, Hyderabad.

Botany

1. Abbas Ali, N Syed. **Studies on somatic embryogenesis and organogenesis in three economic plants : *Mallotus philippensis* Muell Arg and *Aleurites fordii* Hemsl-mature endosperm and *Trachyspermum ammi* (L) Sprague-seedling explants.** Delhi.

2. Ainapore, Naeem Afrose. **Research on Deccan Intertrapean fossiliferous flora of India, inclusive of the paleobiochemistry of *Enigmocarpon parijai*.** Nagpur. Dr M T Sheikh, Department of Botany, Institute of Science, Nagpur.

3. Chibbar, Tarun Kumar. ***In vitro* morphogenetic studies in *Madhuca latifolia*.** Durgavati. Dr Y K Bansal, Department of Botany, Rani Durgavati Vishwavidyalaya, Jabalpur.

4 Danai, Sunita Prabhuappa. **Comparative studies on the species of *Aspergillus* occuring on different plant seeds.** Marathwada. Dr D S Mukadam, Reader, Department of Botany, Dr Babasaheb Ambedkar Marathwada University, Aurangabad.

5. Geetha, S. **Pollen-ovule ratio, resource allocation, gender function, reproductive effort, fitness and fecundity in distylous species.** Kakatiya. Dr V S Raju, Department of Botany, Kakatiya University, Warangal.

6. Ghosh, Amitava. **Stomatal regulation of senescence in plants.** Burdwan. Prof M A Choudhuri, Department of Botany, University of Burdwan, Burdwan.

7. Ghosh, Ashis Kumar. **Characterization of correlative nature of senescence in various plants having differences in source-sink relationship.** Burdwan. Dr A K Biswas, Lecturer, Department of Botany, Sonamukhi College, Sonamukhi.

8. Mahanta, Pradip Kumar. **Physiological studies on seed germination and seedling growth of tea, *Camellia sinensis* (L) O Kuntze.** Gauhati. Dr C M Sarma.

9. Malhotra, Sangeetaa. **Lectins and saponins in pollen and stigmas.** Bangalore. Dr C Kameswara Rao, Department of Botany, Bangalore University, Bangalore.

10. Prasad, K V. **Epidemiology of the rust disease of mulberry.** Bangalore. Dr S B Sullia, Department of Botany, Bangalore University, Bangalore and Dr Dayakar Yadav, Scientist, KSSDI, Thalaghattapura.

11. Swaminath, M H. **Species and environment interaction of some of the forestry species in different agroclimatic zones of Karnataka.** Bangalore. Dr D G Krishnappa, Department of Botany, Bangalore University, Bangalore.

12. Thakur, Ram Dutt Singh. **Studies on the mycoflora of Bargi forest range, Jabalpur, M P.** Durgavati. Dr A K Pandey, Department Bio-Science, Rani Durgavati Vishwavidyalaya, Jabalpur.

13. Umatale, Mohan Vishwanathrao. **Studies on fungal enzymes and toxins in biodeterioration of oil seeds.** Marathwada. Dr D S Mukadam, Reader, Department of Botany, Dr Babasaheb Ambedkar Marathwada University, Aurangabad.

Agriculture

1. Karale, Mhatardeo Umaji. **Studies on combining ability and phenotypic stability for grain yield and its components in pearl millet, *Pennisetum americanum* (L) Leeke.** MP Krishi. Dr S D Ugale.

2. Krishan Kumar. **Morphology and biology of the kernel smut pathogen of rice.** PAU.

3. Kumbhar, Vijaykumar Sheshaling. **Effect of soil properties and foliar spray of ferrous ammonium sulphate on iron chlorosis in sugarcane.** MP Krishi. Dr R B Somawanshi.

4. Rachewad, Shivaji Nivrati. **Long term effects of zinc sources on nutrient availability and their efficiency in sorghum-wheat crop rotation.** Marathwada Krishi. Dr G U Malewar, Assoc Dean and Principal, College of Agriculture, Parbhani.

Zoology

1. Apte, Pradeep Vasant. **Studies on semen analysis and semen processing for assisted reproduction.** Devi Ahilya. Dr N K Dhakar, Department of Zoology, Govt Girls Postgraduate College, Indore.

2. Chattopadhyay, Bholanath. **Studies on the insect and acarine community of uncultivated soils, agricultural lands and wood land soils of Midnapore District, West Bengal and effects of some insecticides on them.** Burdwan. Dr S Roy, Department of Zoology, University of Burdwan, Burdwan.

3. Kubde, Yogeshwar Tukaram. **Studies on the pituitary of some Indian Bats.** Nagpur. Dr M M Gadegone, Dapartment of Zoology, Institute of Science, Nagpur.

4. Lakshmi, K V. **Studies on the histochemical and histoenzymological aspects of the trematode parasite, *Acanthostomum burminis* found in the water snakes, *Tropidonotus piscator*.** Osmania. Dr Devika Rani Chattopadhyaya, SNVMV College, Hyderabad.

5. Lodh, Sarala S. **Biology of some common fishes of a fresh water pond at Wagholi, Pune, India.** Andhra.

6. Narayan Goud, A. **Seasonal community structure of earthworms and their response to ecotoxicological effects of different agrochemicals in semi-arid tropical lowland rice, *Oryza sativa* L ecosystems.** Kakatiya. Dr M Vikram Reddy, Reader, Department of Zoology, Kakatiya University, Warangal.

7. Pandya, Harshang V. **Hormonal and enzymatic studies of some sexual disorders in human population.** Gujarat. Dr V C Shah and Dr (Mrs) N J Chinoy, Department of Zoology, University School of Science, Ahmedabad.

8. Pratima Devi, Kshetrimayum. **Thyroidal involvement in reproductive physiology of the migratory black-headed bunting, *Emberiza melanocephala*.** Manipur. Dr Pardeshi Lal, Department of Life Sciences, Manipur University, Imphal.

9. Revathi Devi, K. **Mode of action of praziquantel on *Gigantocotyle explanatum* (Trematoda : Digenea) a bile duct parasite of cattle.** Osmania. Dr G V Rama, Krishna, Nizam College, Hyderabad.

10. Roy, George K. **Studies on mammalian spermatozoa in relation to fertility regulating agents.** Gujarat. Dr M V Rao, Department of Zoology, University School of Science, Ahmedabad.

11. Shrivastava, Pradeep. **General faunal survey of Madhav National Park Shivpuri, M P with special reference to birds and mammals.** Jiwaji. Dr R Mathur, Prof and Head, Department of Zoology, Jiwaji University, Gwalior.

12. Vijaya Kumar, T N. **Resource utilisation by birds attending figs in South India.** Calicut. Dr V J Zacharias, Department of Zoology, St Joseph's College, Devagiri, Calicut and Dr T Ramakrishna, Department of Life Sciences, University of Calicut, Calicut.

Medical Sciences

1. Bhaskar Rao, B. **Field evaluation of impregnated bednets for the control of malaria.** Dibrugarh. Dr (Mrs) Ruma Handique, Prof, Department of Life Sciences, Dibrugarh University, Dibrugarh; Dr L P Dutta, Director (Retd), Regional Malaria Research Centre, Dibrugarh and Dr V P Sharma, Director, Malaria Research Centre, Delhi.

2. Devani, Tushar Muljibhai. **Preparation evaluation and stability studies on folic acid metal-ion complexes in liquid pharmaceutical preparation.** Gujarat. Dr (Mrs) B M Trivedi, L M College of Pharmacy, Ahmedabad.

3. Gupta, Rajesh Kumar. **Some of the pharmacodynamics effects of calcium channel blockers and dopanine antagonists.** Nagpur. Dr M L Sharma, Department of Pharmacology, M G Institute of Medical Sciences, Sewagram.

4. Mehrotra, Rekha. **Haemoglobinopathies and thalassemias: A study of the B-globin gene in the anaemic children of Delhi, North India.** Delhi.

5. Munshi, Ajay Praful. **Cryobiology in treatment of piles.** Gujarat. Prof Y K Agrawal, Department of Chemistry, University School of Science, Ahmedabad.

6. Nanda, Arun. **Development of a transdermal drug delivery system by ionophoresis for some anti-hypertensive**

drug and its evaluation. Jamia Hamdard. Dr R K Khar.

7. Parikh, Rajesh Harshadray. **Studies on liposome as a drug carrier system.** Gujarat. Dr (Miss) B M Trivedi, L M College of Pharmacy, Ahmedabad.

8. Patel, Kamlesh Prahladbhai. **Study of relationship between temperature and effects of drugs in isolated tissue preparation.** Gujarat. Dr K C Dave and Smt N H L Muni, Medical College, Ellisbridge, Ahmedabad.

9. Sarangapani, M. **Synthesis and evaluation of some new isatin derivatives of pharmacological importance.** Kakatiya. Prof V Malla Reddy, Department of Pharmacy, Kakatiya University, Warangal.

10. Sundareshan, T S. **Evaluation of genetic predispositions in pedigrees with the incidence of hereditary/familial cancers.** Bangalore. Dr Meena Augustus, 8717 Irvington Avenue, Bethesda, MD, USA.

11. Waikar, Shekhar Balwant. **Phytochemical and pharmacognostic investigations of some members of Euphorbiaceae.** Nagpur. Dr A N Saoji, Department of Pharmaceutical Sciences, Nagpur University, Nagpur.

Veterinary Sciences

1. Datta, Tirtha Kumar. **Chromosomal profile of *in vitro* maturation process of follicular oocytes in buffaloes.** NDRI.

2. Dhirajgar, Aparnathi Kishorkumar. **Studies on preparation, properties and use of annatto pigment concentrate.** NDRI.

3. John, Lalitha. **Studies on the *in vitro* cultivation of bovine lymphocyte cells infected with *Theileria annulata*.** TN Vet. Dr R Anandan, Prof and Head, Department of Parasitology, Madras Veterinary College, Madras.

4. Kundu, Madhu Sudan. **Dietary zinc and copper levels influencing the immune status of calves.** NDRI.

5. Mishra, Sharad. **Studies on the characteristics of muzzle dermatoglyphics in dairy cattle and buffalo.** NDRI.

6. Mitra, Abhijit. **Studies on restriction fragment length polymorphisms in cattle and buffaloes.** NDRI.

7. Naresh Kumar. **Effect of nisin on the behaviour and ultrastructure of selected lactic and non-lactic microorganisms.** NDRI.

8. Paul, Baidya Nath. **Nutrient utilization in ruminants as affected by nature and level of dietary lipids.** NDRI.

9. Prabhakar, Sushil. **Studies on modulation of stress of dystocia in buffaloes.** PAU.

10. Puniya, Anil Kumar. **Studies on bioconversion of lignocellulosics into enriched animal feed using SSF-ENLAC technology.** NDRI.

11. Rajasundaram, R C. **Studies on minerals and hormones in reproductive failures in bovines.** TN Vet. Dr J Rajasekaran, Prof and Head, Department of Obstetrics and Gynaecology, Madras Veterinary College, Madras.

12. Rajender Singh. **Animal husbandry practices in relation to different farming systems in Haryana.** HAU.

13. Rajesh Kumar. **Buffalo milk lactoperoxidase : Isolation, purification and characterization.** NDRI.

14. Ramachandra, K S. **Nutrient utilization in lactating cows maintained on straw based ration containing different proportions of RDN, bypass protein, phosphorus and sulphur.** NDRI.

15. Rath, Shitanshu Shekhar. **Studies on immunological control of dog tick *Rhipicephalus sanguineus*.** PAU.

16. Shiv Prasad. **Studies on body condition scoring and feeding management in relation to production performance of crossbred dairy cattle.** NDRI.

17. Shive Kumar. **Genetic evaluation of broiler parental lines.** HAU.

18. Thangavel, A. **Biochemical profile of follicular fluid in buffaloes.** TN Vet. Dr Mohamed Nayeem, Assoc Prof, Department of Physiology and Biochemistry, Madras Veterinary College, Madras.

19. Viswanathan, K. **Studies on the nutritive value of varagu, *Paspalum scrobiculatum* in poultry rations.** TN Vet. Dr M R Viswanathan, Prof, Department of Animal Nutrition, Madras Veterinary College, Madras.

JUST RELEASED

University Administration and Management
Price Rs. 200/-

Accountability in Higher Education
Price Rs. 200/-

For details please write to :

Deputy Secretary (*Publications*)
Association of Indian Universities
AIU House, 16 Kotla Marg
New Delhi-110 002
Telephones : 331/0059, 2305, 2429, 3390
Telex : 31-66180 AIU IN Grams : ASINDU
Fax 011-3315105

INDIAN COUNCIL OF MEDICAL RESEARCH

Applications are invited upto **30 June, 1995** for the following posts under the Council's Institutes/Centres:

(A) AT THE INSTITUTE OF IMMUNOHAEMATOLOGY, BOMBAY : *Senior Research Officer (Medical) - (One post)* (Scale of pay of Rs. 3000-100-3500-125-4500).

Qualification & Experience : Essential : M.B.B.S. with 6 years research/teaching experience in subject of immunohaematology or M.D. in Medicine or Pathology with two years research/teaching experience in Immunohaematology. **Job Requirements :-** To undertake research in the field of Immunohaematology.

(B) AT THE INSTITUTE FOR RESEARCH IN MEDICAL STATISTICS, MADRAS. 1. Assistant Director (Medical) :- One post) (Scale of pay of Rs. 3700-125-4700-150-5000) Qualifications & Experience Essential :- (a) M.B.B.S. with 12 years research experience in social and preventive medicine (10 years in the case of candidates possessing doctorate or equivalent medical post-graduate degree), and practical knowledge of the conduct of field studies in health services research, sample surveys and evaluation of health intervention programmes. **(b)** Original work, as evidenced by publications. **Job Requirement:-** The incumbent will be required to assist in planning and coordinating field studies in the delivery of rural health care, evaluate health intervention programmes and participate actively in the Institute's training programmes. The incumbent must have a sound appreciation of statistical methodology, and must be willing to function as a member of a team comprising largely of statisticians.

2. Senior Research Officer (Computer Programmer):- (One post) (Scale of pay of Rs. 3000-100-3500-125-4500). Qualification & Experience Essential :- (a) 1st Class M Sc. Degree in Statistics/ Mathematics/Computer Science or Computer applications. **(b)** Thorough knowledge of Computer Programming and 6 years practical experience on mini computer systems, preferably on Unix platforms; 2 years in the case of candidates with a doctorate degree. **Desirable :-** Knowledge of SAS/SPSS. **Job Requirement :-** The selected candidate **1)** must develop generalised software packages for interactive data analysis using mini/micro computer systems. **2)** must organise training programmes for statisticians and medical personnel in the interactive use of computers.

3. Senior Research Officer (Systems Analyst) :- (One post) (Scale of pay of Rs. 3000-100-3500-125-4500). Qualification & Experience Essential:- (a) A recognised (First Class) Post graduate or equivalent degree in Statistics/ Mathematics/Computer Science/Computer Applications. **b)** 6 years practical experience on large system, 2 years in the case of candidates with a doctorate degree in the area of software development and data management. **c)** Thorough knowledge of Computer programming and Systems development activities. **Desirable :-** Familiarity with operational/managerial aspects of computer units. **Job Requirements :-** The selected candidate will be responsible for designing suitable database management systems for rapid statistical analysis of data from health surveys, epidemiological studies and multi-centric clinical trials. He/She will have to interact closely with the researchers of the Institute for meeting their data processing requirements, and also look after the administrative and operational functions of the computer section.

(C) AT THE NATIONAL INSTITUTE OF OCCUPATIONAL HEALTH, AHMEDABAD : *Assistant Director : (One post)* (Scale of pay of Rs. 3700-125-4700-150-5000). Educational Qualification : Essential : Recognised M.B.B.S. **Desirable :** *Recognised MD in General Medicine.* **Work Experience : Essential :** 12 years teaching/ research (10 years for MD candidates) in Occupational Health. Experience in undertaking epidemiological/ clinical studies. **Job Specifications :-** The candidate is expected to assist in planning & Coordinating research activities in relations to health problems of working women and children.

(D) AT THE REGIONAL OCCUPATIONAL HEALTH CENTRE (NIOH), BANGALORE : 1. Senior Research Officer (Pesticide Residue Analyst) :- (One post) (Scale of pay of Rs. 3000-100-3500-125-4500) Educational Qualification : Essential :- M.Sc. (1st Class) in Chemistry or Agricultural Chemistry. **Desirable :** Ph.D. in Chemistry. **Work Experience : Essential :** Six years teaching/research experience (two years in cases of Ph.D) in pesticide residue analysis from biological samples and/or food commodities evidenced by publications in National/International Journals. Experience in handling modern analytical instruments such as GLC, HPCL, etc. **Job Specification :** The candidate will assist in planning and monitoring work related to pesticide pollution and pesticide exposure

2. Research Officer (Medical) :- (One post) (Scale of pay of Rs. 2200-75-2800-EB-100-4000) (reserved for SC candidate). Educational Qualification Essential : Recognised M.B.B.S **Desirable :** Recognised MD or DIH. **Work Experience** · Three years teaching/research experience in Occupational Health. Experience in Community health serveys would be an advantage **Job Specification :** To work as a member of the team for undertaking Occupational Health Servey, MD, Industrial Community & assist in organising occupational health services.

(E) AT THE NATIONAL INSTITUTE OF VIROLOGY, PUNE: (1) Dy. Director (Diagnostic Virology) - One post. (Scale of pay of Rs. 4500-150-5700) Qualifications & Experience : Essential: M.B.B.S./1st class M.Sc in Microbiology/Biochemistry/Pathology/Life Science with specialisation in Virology/Genetic Engineering (related to Human or Animal Viruses) with 12 years research/teaching experience as evidenced by good quality publications (10 years research/teaching experience for candidates possessing M.D. in Tropical Medicine/Microbiology/Pathology/ Bacteriology or Ph.D. in Microbiology/Biochemistry/Biotechnology in the above fields with good quality of work to their credit as evidenced by publications. **Desirable :** Diploma in Medical Virology. **Job Requirements :** To undertake research as part of the N.I.V. team of scientists. The incumbent will be required to carry out research in different aspects of viral infections with the main object of strengthening control measures against viral diseases. Apart from taking up genetic engineering studies of viruses, the incumbent should be ready to carry out field investigations on disease outbreaks in India as and when called for.

(2) *Assistant Director (Laboratory Animals) - (One post)* (Scale of pay of Rs. 3700-125-4700-150-5000) Qualifications & Experience : Essential : M.B.B.S./1st class M.V.Sc./1st class M.Sc. in Microbiology/Life Sciences/ Biochemistry with 12 years research/teaching experience in maintenance of Animal House/ Laboratory (10 years research/teaching experience for candidates possessing M.D./Ph.D. in the relevant field). Original work as evidenced by publications **Job Requirements :** To supervise the work in Animal House, breeding maintenance and supply of laboratory animals, including administration. To carry out re-

search programmes of the Institute. He/She may be required to carry out field work in any part of the country for any length of time.

(F) AT THE INSTITUTE OF PATHOLOGY, NEW DELHI : Senior Research Officer (Biotechnology/Molecular Biology): (One post) Scale of pay of Rs. 3000-100-3500-125-4500. Qualification & Experience : Essential : a) 1st class M.Sc. (Molecular Biology/Biotechnology) **b)** 6 years research/teaching experience in the field of Molecular Biology. **Desirable :** Ph.D. with 2 years research/teaching experience. **Job Requirements :** The candidate is expected to assist in setting up a Molecular Biology Lab targetted towards tumor Pathology and AIDS Pathology.

AGE : Below 50 years for the post of Deputy Director and below 45 years for the post of Asstt. Director/SRO/RO as on 30th June, 1995. SC/ST candidates allowed relaxation in accordance with Govt. of India Rules in force

Candidates belonging to SC/ST communities will have to furnish certificates from prescribed authority in the required format printed at page 345 of the brochure on reservation of SC & ST in services which can be supplied on demand failing which they will not be entitled to the concession admissible to them, if any. Since it is not possible to call all the eligible candidates for the interview, the applications will be shortlisted for the purpose and the decisions of the Director General will be final. The number of vacancies to be filled may vary at the time of actual selection. In the event of non-availability of suitable candidates for advertised posts, the positions can be filled up at Lower level up to the rank of Research Officer. Allowances as per Central Government rules are admissible on the above pay scales. Benefits of pension admissible. Private practice is not allowed However, NPA @ Rs. 600/- p.m on a pay from 2200-2999, @ Rs 850/- p.m on a pay from Rs. 3000-3699 and @ Rs. 950- p.m on a pay from Rs. 3700-5999 is admissible to medical graduates. Candidates called for interview for the post of Deputy Director and Assistant Director will be paid 1st class rail fare and for the post of Senior Research Officer and Research Officer will be paid IInd class rail fare by shortest route, on production of documents Applications from employees working in Central/State Govt. deptt./Public Sector Undertaking and Govt. funded research agencies must be forwarded through proper channel. Application forms can be obtained from the office of the **Director General, Indian Council of Medical Research, Ansari Nagar, Post Box No. 4911, New Delhi-110029.** Forms duly completed should be sent to the **Director General, Indian Council of Medical Research, Ansari Nagar, Post Box No. 4911, New Delhi-110029** with a crossed IPO for **Rs. 8/-** payable to the **Director General, ICMR, New Delhi.** SC/ST candidates are exempted from this payment. Incomplete and late application or without postal orders will not be entertained. The name of the post of the Institute/Centre must be indicated in the Application Form Separate application forms should be submitted for each post with crossed IPO for Rs. 8/- and for each Institute/ Centre.

Any canvassing by or on behalf of the candidates or to bring political or other outside influence with regard to the selection/ recruitment shall be considered a DISQUALIFICATION.

B.V. PATEL PHARMACEUTICAL EDUCATION & RESEARCH DEVELOPMENT CENTRE

AHMEDABAD

Invites applications for the following positions in the **Chemistry Division :**

Joint Director : The incumbent should have a Ph.D., with specialisation in medicinal and synthetic organic chemistry and a minimum of ten years academic or industrial experience, to lead the Chemistry Research Division.

Assistant Directors : The incumbent should have a Ph.D., a minimum of ten years academic or industrial experience, with specialisation in medicinal and/or synthetic organic chemistry, or analytical chemistry and instrumentation or radiolabelled synthesis.

Research Scientists : The incumbent should have a Ph.D., with specialisation in medicinal and/or synthetic organic chemistry, or analytical chemistry and instrumentation or radiolabelled synthesis.

Research Assistants : The incumbent should either have a M.Pharm/M.Sc. or B.Pharm with a minimum of three years experience with specialisation in medicinal and/or synthetic organic chemistry, or analytical chemistry and instrumentation or radiolabelled synthesis.

Remuneration will be commensurate with experience, at par with national laboratories. Consultation permitted. Interested candidates may send their bio-data **within 15 days** of the advertisement to :

The Director, B.V. Patel PERD Centre,
Sarkhej-Gandhinagar Highway, Thaltej, Ahmedabad - 380 054.

ANNAMALAI UNIVERSITY
DIRECTORATE OF DISTANCE EDUCATION

Telephone : 04144-22610 (Chidambaram)
Telex: 4602 202 DDEC IN
FAX: 04144-22987

ADMISSION NOTIFICATION FOR THE YEAR 1995-96

The Directorate offers the following courses of study. Admission is open to persons all over India.

I. PROFESSIONAL COURSES

Duration : **One Year**

1. B.Ed. (English & Tamil Medium)
   Admission will be given in the following order of preference
   a. *Graduate Teachers working in Schools*
   b. Post Graduates
   c. Graduates from the recognised Universities
2. M.Ed. (English and Tamil Medium)
   Eligibility : *B.Ed./M.H.Ed. or an equivalent degree*
3. Post Graduate Diploma in Pre-Primary Education (English Medium)
   Eligibility : Any degree

II. FOUNDATION COURSES : (English & Tamil Medium)

1. **First Year:**
   Eligibility : Pass in 10 year SSLC (New pattern)/Failed in 11 year SSLC/First year of Plus 2 course/ Matriculation (11 year) or an equivalent examination.
2. **Second Year :**
   Eligibility : Pass in 11 year SSLC/11 year Matriculation/ First year of the Foundation Course/Failed in Pre-University examination/2nd year Intermediate examination or an equivalent examination.

III. UNDER GRADUATE COURSES :

Duration : **Three Years**

1. B.A. History (English & Tamil Medium)
2. B.A. Sociology (English & Tamil Medium)
3. B.A. Psychology (English Medium)
4. B.A. Economics (English & Tamil Medium)
5. B.A. English
6. B.A. Tamil
7. B.Lit. (Tamil)
8. B.Com. (English & Tamil Medium)
9. B.B.A. (Bachelor of Business Administration) (English Medium)
   Eligibility : (For Sl. Nos. 1 to 9) : A pass in Pre-University-Higher Secondary Examination/Second Year Foundation Course or an equivalent examination.
10. B.Sc. Mathematics (English Medium)
    Eligibility : A pass in Pre-University/Higher Secondary Examination/Second Year Foundation Course or an equivalent examination with mathematics as one of the subjects.
11. B.Lit. EXEMPTION
    Eligibility : Those who have passed the Pulavar Examination from Annamalai University or an equivalent examination and having 10 years teaching experience are eligible to seek admission to Third Year B.Lit. Course.

IV. Post Graduate Courses :

1. **M.B.A (Master of Business Administration) (Approved by the A.I.C.T.E)**
   Duration : **Three Years**
   Eligibility : Any graduate with II class (50% of marks) and minimum three years of experience after graduation in the Managerial/Executive/Supervisory Cadre. Applicants must have completed 25 years of age as on 01-06-95.
   Duration . (For Sl. Nos. 2 to 13): **Two Years**
2. M.A. Tamil
   Eligibility : B.A./B.Sc. with Tamil under Part I or III or B.Lit Tamil
3. M.A. English
   Eligibility : B.A/B.Sc. with English under Part II or Part III
4. M.A. History (English & Tamil Medium)
   Eligibility : B.A./B.Sc.
5. M.A. Sociology (English & Tamil Medium)
   Eligibility : B.A./B.Sc./B.Com./B.B.A.
6. M.A. Economics (English & Tamil Medium)
   Eligibility : B.A. Economics or B.Sc. Statistics/ B.Sc. Mathematics with 50% marks in Part III of the B.Sc. degree
7. M.A. Psychology (English Medium)
   Eligibility : B.A. (Psychology) / Any other B.A. or B.Sc. or B.Com. or Bachelor's Degree in Management or Bachelor of Rehabilitation Science with 40% of marks in Part III
8. M.Sc. Mathematics (English Medium)
   Eligibility : B.Sc. Mathematics/B.Sc. Statistics with Mathematics as one of the ancillary subjects.
9. M.Sc. Physics (English Medium)
   Eligibility : Candidates with B.Sc. (Physics Main with Mathematics as one of the ancillary subjects) degree.
10. M.Sc. Chemistry (English Medium)
    Eligibility : Candidates with B.Sc. (Chemistry Main with Physics as one of the ancillary subjects) degree
11. M.Sc. Zoology (English Medium)
    Eligibility : Candidates with B.Sc. (Zoology Main with Chemistry as one of the ancillary subjects) degree.
12. M.Sc. Botany (English Medium)
    Eligibility : Candidates with B.Sc. (Botany Main with Chemistry/Bio-Chemistry as one of the ancillary subjects) degree.
13. M.Com. (English & Tamil Medium)
    Eligibility : B.Com./B.B.A./B.A. Corporate Secretaryship/ B.A. Cooperation/ Bachelor of Bank Management/MBA.

V. LAW COURSES :

a. Post Graduate Courses

1. M.L (Master of Law) (English Medium)
   Duration : ***Three Years***
   BRANCH I. Contracts Including Mercantile Law
   BRANCH II. Labour and Industrial Relations and Administrative Law
   Eligibility : B.L or any equivalent degree.

b. Degree Courses

2. B.A.L (Bachelor of Academic Laws) (English Medium)
   Duration : **Three Years**
3. B.G.L (Bachelor of General Laws) (English Medium)
   Duration : **Two Years**
   Eligibility : (For Sl. Nos. 2&3): Any degree

c. Diplomas : (English Medium)

4. Diploma in Labour Laws with Administrative Law
5. Diploma in Law of Taxation
   Duration : **One Year**
   Eligibility : (For Sl. Nos. 4&5): Any degree

VI. MANAGEMENT COURSES : (English Medium)

Duration : ***One Year***

1. Diploma in Production Management
   Eligibility : B.E./M.Com./M.B.A./M.A. Economics/ M.Sc. Mathematics/M.Sc. Statistics/B.E. Agriculture/Diploma Holders in Engineering

Post Graduate Diploma in

2. Materials Management
3. Business Administration
4. Personnel Management and Industrial Relations
5. Marketing Management
6. Financial Management
7. Tourism Management
8. Advertising
9. Public Relations
10. Post Graduate Diploma in Econometrics
    Eligibility : (For Sl. Nos. 2 to 10): Any degree
11. Post Graduate Diploma in Management Accounting
    Eligibility : B.A./B.Sc./B.Com./B.Sc. (Agri.) or an equivalent degree

VII. Job Oriented Courses :

Duration : **One Year**

1. Diploma in Concrete Technology and Design of Concrete Structure (English Medium)
2. Diploma in Construction Management (English Medium)
   Eligibility : (For Sl. Nos. 1 & 2): Diploma in Civil Engineering/B.E. Civil Engineering/B.E. Civil and Structural Engineering/A.M.I.E. Civil Engineering.
3. Diploma in Chemical Process, Instrumentation and Control (English Medium)
   Eligibility : i. B.Sc. Degree holders with Chemistry as one of the subjects.
   ii. Diploma holders (three years) in any branch of Engineering or Technology.
   iii. Bachelor of Pharmacy
4. Diploma in Maintenance Management (English Medium)
   Eligibility : i. B.E. (Mechanical/Production/Electrical/Chemical)
   ii. A.M.I.E. (Mechanical/ Electrical/Chemical)
   iii. Diploma in Engineering (Mechanical/ Electrical/ Chemical).
5. Post Graduate Diploma in Banking (English Medium)
6. Post Graduate Diploma in Co-operative Management (English Medium)
   Eligibility : (For Sl. Nos. 5&6): Bachelor's degree in Arts, Science, Commerce, Agriculture, or Engineering or equivalent qualifications.
7. Diploma in Sugar Technology (English Medium)
8. Diploma in Fertilizer Technology (English Medium)
   Eligibility : (For Sl. Nos. 7&8) :
   i. B.Sc. degree holders with Chemistry as one of the subjects
   ii. B.Sc. (Agriculture)
   iii. Diploma (3 years) in either Chemical or Mechanical Engineering
9. Diploma in Industrial Safety (English Medium)
   Eligibility : A Graduate in Science/Arts/Agriculture/ B.Pharm./M.B.B.S./Degree in Nursing or any Diploma (3 years) holder/Degree holder in Engineering or Technology
10. Diploma in Industrial Pollution and Control (English Medium)
    Eligibility : B.Sc. degree with Chemistry/Physics/ Botany/Zoology as Main or ancillary subjects or Diploma (3 years) holders in any Branch of Engineering and Technology or M.B.B.S./ B.Pharm./Degree in Nursing.
11. Diploma in Industrial Hygiene (English Medium)
    Eligibility : a. Graduates in Science (B.Sc.)
    b. M.B.B.S./B.E./B.E. (Chem.)/B.Tech.
    c. B.Pharm/B.Sc. (Agri)
    d. Diploma (3 years) in Engineering/ Nursing
    e. M.B.A. (If the applicants have studied Physics, Chemistry and Botany at the Higher Secondary level)
12. Diploma in Energy Management Technology (English Medium)
    Eligibility : a. Graduates in B.A./ B.Sc./B.Com.
    b. B.E./B.E. (Chem.)/B.Tech./B.Pharm.
    c. B.Sc. (Agri.)/M.B.A.
    d. Diploma (3 years) in Engineering/Technology
13. Post Graduate Diploma in Guidance and Counselling (English Medium)
    Eligibility : i. B.A. Psychology/M.A. Psychology
    ii. Graduation in any discipline with a minimum of 3 years experience in Teaching/ Administrative/Clinical Profession

Certificate Course in

14. Automobile Technology (English & Tamil Medium)
15. Offset Machine Printing (English & Tamil Medium)
16. Binding & Finishing (English & Tamil Medium)
17. Office Management (English & Tamil Medium)
    Eligibility : (For Sl. Nos. 14 to 17) A Pass in SSLC (X Standard) or equivalent examinations

VIII. LIBRARY SCIENCE COURSES :

Duration : **One Year**

1. B.L.I.S. (Bachelor of Library and Information Science) (English Medium)
   Eligibility : Any degree
2. M.L.I.S. (Master of Library and Information Science) (English Medium)
   Eligibility : Bachelor of Library Science/Bachelor of Library and Information Science or equivalent qualifications.

COST OF APPLICATION FORM FOR ALL COURSES EXCEPT M.B.A. IS RS. 50/- COST OF APPLICATION FORM FOR M.B.A. IS RS. 200/-

APPLICATION FORM AND PROSPECTUS CAN BE HAD FROM THE DIRECTOR, DIRECTORATE OF DISTANCE EDUCATION, ANNAMALAI UNIVERSITY, ANNAMALAI NAGAR - 608 002 by sending a requisition along with a crossed Demand Draft drawn in favour of the **Director, D.D.E., Annamalai University**, on any bank at Annamalainagar/Chidambaram, mentioning clearly the name of the course for which the application form is required and a self-addressed unstamped cover of size 25 cm x 12 cm. Cheques, Postal Orders and Money Orders are not accepted. Demand Draft should be purchased on or after **09-05-95.**

Applications can also be had in person on cash payment from the Directorate of Distance Education and the following Study Centres and Information Centres of the Directorate from 19-05-95.

Those who want to get applications by post should apply to the Directorate only and not to the Study Centres.

1. **ANNAMALAI NAGAR**	:	DDE Building Annamalai University Annamalainagar - 608 002
2. **CALCUTTA**	:	19, Sardar Sankar Road Calcutta - 700 029 Phone : 767215
3. **COIMBATORE**	:	72, Sarojini Street Ram Nagar, Coimbatore - 641 009 Phone: 234406
4. **KARAIKUDI**	:	7, Seventh Street Subramaniapuram Karaikudi - 623 002 Phone: 23417
5. **MADRAS**	:	19, Rukmani Lakshmipathi Road (Behind Air India Office) Egmore, Madras - 600 008 Phone : 8261590/8261909
6. **Information Centre**	:	27, North Park Street Venkatapuram Ambattur, Madras - 600 053
7. **Information Centre**	:	11, First Cross Street New Colony Chromepet, Madras - 600 044
8. **MADURAI**	:	176, North Veli Street Madurai - 625 001 Phone: 37327
9. **NEW DELHI**	:	Rama Market (Second Floor) E-249, Munirka Village New Delhi - 110 057 Phone: 6963345
10. **SALEM**	:	15, Dr. Subbarayan Road (Near Palace Theatre) Salem - 636 001 Phone: 419660
11. **TIRUNELVELI**	:	49-C, Kailasapuram North Street Bava Building (Second Floor) (Near Bus Stand) Tirunelveli - 627 001 Phone: 322923
12. **TIRUCHI**	:	32-B, Seventh Cross Thillai Nagar, Tiruchi - 620 018
13. **VELLORE**	:	4, Thiagarajapuram, (Near Lakshmi Theatre) Vellore - 632 001 Phone: 27647
14. **NAGERCOIL (Information Centre)**	:	316-E, K.P. Road Nagercoil-629 003 Phone: 30581

All the Study Centres and Information Centres except that at Annamalainagar will remain closed on all Tuesdays, Second Mondays and all other public holidays.

Applications for all courses will be issued up to **27-07-95.**

The last date for receipt of filled in applications for all courses is **31-07-95.**

Filled in applications should be sent only to the **Director, Directorate of Distance Education, Annamalai University, Annamalainagar, Tamil Nadu, PIN CODE 608 002.** IN NO CASE FILLED IN APPLICATIONS SHOULD BE SENT TO THE STUDY CENTRES.

SPOT SELECTION FOR ADMISSION

Spot Selection for admission to all courses except M.Sc. (Physics, Chemistry, Zoology and Botany), B.Ed. and M.B.A will be made through all our Study Centres if the applicants submit along with their applications the necessary original certificates, xerox copy of certificates, Demand Draft for the prescribed fee and two copies of their recent photographs of size 4 cm x 3 cm. The spot selection is provisional and subject to confirmation by the Director.

***Spot selection for admission to B.Ed. degree course for* Tamil Nadu and Pondicherry candidates only will be made at all our Study Centres in Tamil Nadu from 19-05-95.**

CAUTION

THE DIRECTORATE HAS NO AGENTS. APPLICANTS *ARE ADVISED TO WRITE TO THE DIRECTORATE INDIVIDU*ALLY FOR APPLICATION FORMS AND ADMISSION. APPLICATIONS FOR ADMISSION RECEIVED THROUGH TUTORI*ALS OR ANY OTHER AGENCIES WILL BE SUMMARILY RE*JECTED.

NOTE : Where a degree is prescribed as the qualification for admission to a course, applicants who have passed the qualifying degree examination under the 10+2+3+/11+1+3/11+2+2 year pattern and under the Open University System alone are eligible for admission to the course.

OPEN UNIVERSITY SYSTEM - Courses Offered

B.A. History, Sociology, Economics, Political Science, Population Studies, B.Com. (English & Tamil Medium)

B.A. English Psychology, B.Sc. Mathematics (English Medium)

B.A. Tamil, B.Lit (Tamil)

M.A. History, Sociology, Economics (English and Tamil Medium)

M.A. English, Public Administration (English Medium)

M.A. Tamil

Diploma in Saiva Siddhanta (English and Tamil Medium)

Eligibility : No formal educational qualification is required. To be eligible for admission to UG and Diploma Courses one must have Completed 20 years of age and for PG courses 25 years of age as on 01-06-95.

Last date of issue of application - 20-06-95 and receipt of filled in applications - 26-06-95 for OUS only.

PLACE : Annamalainagar
DATE : 09-05-95

DR. V. GOMATINAYAGAM
DIRECTOR I/C

MINISTRY OF DEFENCE

DEFENCE RESEARCH AND DEVELOPMENT ORGANISATION (DRDO)

Advt. No. 042/RAC/95

FELLOWSHIP SCHEMES LEADING TO AN EXCITING CAREER

DRDO, a leading scientific organisation, is on the look out for ambitious, highly motivated science and engineering graduates with bright track record and having aptitude for research and development and those who are ready to accept challenges in high-tech areas of R&D viz Radars, Electromagnetic Interference/ Electromagnetic Compatibility, Microwave, Computers, Signal Processing, Milimetric Wave Systems & Devices, Guidance and Control, Gas Turbine, Armaments, etc. The induction is through Fellowship schemes and applications are invited for the following Fellowship Programmes in DRDO :

Sl No	Name of Fellowship	No. of Fellowships	Duration & Place
I	Electronic Fellowship course (EFC)	45 (UR-23, SC-7, ST-3, OBC-12)	12 Months IAT Pune*
II	Gas Turbine Technology/Mechanical Engineering/Armament Technology Fellowship course GTTC/MEFC/ATFC)	25 GTTC (UR-3, SC-1, ST-0, OBC-2) MEFC (UR-6, SC-2, ST-1, OBC-3) ATFC (UR-3, SC-1, ST-1, OBC-2)	12 Months IAT Pune*
III	Senior Fellowship course in Guided Missile Technology Leading to M E/M Tech. Degree (IGMDP)	30 (UR-15, SC-5, ST-2, OBC-8)	18 Months** At Institutes given in Table-I Column No 2

* Selected candidates for fellowship courses at serial I & II will have to undergo specialised training as fellows at Institute of Armament Technology (IAT), Pune and will have to pass such tests as are prescribed by the Institute.

** Selected candidates for Senior Fellowship Course at Serial III will have to undergo specialised courses leading to Postgraduate degree in concerned subject at one of the Institutes/Universities given in Table I.

Table I

Sl No	Name of the University/ Institute	Specialist Area.	Qualification Requirements	No. of Fellowships
(1)	(2)	(3)	(4)	(5)
(a)	Indian Institute of Technology, Kharagpur-712302	Signal processing, Microwave Engg	Bachelor's degree in Electronics Engg. or equivalent.	4
(b)	Indian Institute of Science, Bangalore-560012.	Aeronautics Fluid Dynamics, Control Propulsion	Bachelor's degree in Aero/Mechanical Electrical/Chemical Engg or equivalent	7
(c)	Indian Institute of Technology Madras-600036	Hydro Dynamics Propulsion, CAD/CAM, Aeronautics, Composites.	Bachelor's degree in Mechanical/ Aero/Chemical/ Electrical Engg or equivalent	6
(d)	PSG College of Technology Coimbatore-641009	CAD/CAM, Production Tech, Design	Bachelor's degree in Mechanical Engg or equivalent	5
(e)	Indian Institute of Technology Bombay-400076	Control, Aero Engg, Composites	Bachelor's degree in Aero/Mechanical/ Electrical/Chemical Engg or equivalent	4
(f)	Madras Institute of Technology Madras-600044	Avionics, Instrumentation	Bachelor's degree in Electronics Engg or equivalent.	2
(g)	Jadavpur University Calcutta-700 032	Control and Guidance Software, Systems	Bachelor's degree in Electrical/ Electronics/ Computer Sc Engg or equivalent.	2

2. ELIGIBILITY :

(I) Age : Not exceeding 26 years (relaxable by five years in case of SC/ST candidates and Govt servants, and 3 years for OBC candidates). Age for all fellowships will be reckoned as on 10 June 1995.

(II) ESSENTIAL QUALIFICATIONS :

(a) EFC : At least second class Master's degree in Physics/Applied Physics with specialisation in Electronics or second class Bachelor's degree in Electronics and/or Communication Engineering from a recognised University or equivalent.

(b) MEFC/GTTC/ATFC : At least second class Bachelor's degree in Mechanical or Aeronautical Engineering from a recognised University or equivalent.

NOTE : Candidates appearing in qualifying examination can also apply for Fellowships at (a) & (b). The candidature of such candidates can be considered only if they acquire essential (i.e BE/ MSc) qualifications by 31st July, 1995. They must bring the marksheet or the documentary proof of the aggregate marks obtained including the final semester at the time of Interview.

(c) For Senior Fellowship under IGMDP : At least Bachelor's degree in relevant subject as mentioned in Table I.

NOTE : Candidates who will be admitted by the Universities/ Institutes given in Table I for their ME/M.Tech programmes will alone be considered for the award of the senior fellowship under IGMDP.

(III) DESIRABLE QUALIFICATIONS :

Knowledge of German, French, Russian, Japanese or Chinese language.

3. STIPEND/SALARY : During training, the trainees will be paid a consolidated stipend and after successful completion of the training, they will be considered for regular employment in DRDO

as Scientist 'B' as per details given below :-

(a) EFC/MEFC/GTTC/ATFC Fellowships : Rs. 2700/- per month as stipend for 12 months.

(b) IGMDP Senior Fellowship : Rs. 3200/- per month as stipend of 18 months.

(c) **Salary** : On successful completion of the course/training, the fellows would be placed in one of the Laboratories/Establishments of DRDO as Scientist 'B' in the scale of Rs. 2200-75-2800-EB-100-4000 plus usual allowances depending upon the place of posting. In addition, advance increments may be given in deserving cases depending on the performance during the training. Candidates who fail to pass tests/examination as prescribed by the institutes and do not successfully complete the training in the first attempt shall not be considered for appointment to the grade of Scientist 'B'.

4. ALLOWANCES/TA/DA/HOSTEL FACILITIES :

In addition to stipend, book allowance would be admissible. Fellows may be given suitable hostel accommodation during the period of fellowship on payment of rent as per rules. For instructional tours and summer training in the DRDO establishments, the fellows will be entitled to TA/DA as admissible to Central Government Group 'A' officers drawing a basic pay of Rs. 2200/- in the scale of Rs. 2200-75-2800-EB-100-4000.

5. WHERE TO SEND THE APPLICATION FORM :

(a) For EFC/MEFC/GTTC/ATFC : Applications should be sent to **the Director, Recruitment & Assessment Centre, Lucknow Road, Timarpur, Delhi-110054** preferably by Registered Post.

(b) For Senior FELLOWSHIP UNDER IGMDP : Applications should be sent to **Registrar/Deputy Registrar/Head of the Department** of the respective institution as mentioned in Table I.

6. APPLICATION FEE :

Application should be accompanied with a crossed non-refundable current Indian Postal Order of the value of Rs. 10.00 drawn in favour of **Senior Accounts Officer, Recruitment & Assessment Centre, Defence Research and Development Organisation, payable at New Delhi-110011.** There is no fee for scheduled caste and scheduled tribe candidates.

7. LAST DATE FOR RECEIPT OF APPLICATION :

(a) For fellowship at serial No. I (EFC) and at serial no. II (GTTC/MEFC/ATFC) **10 JUNE 1995.**

However, candidates from Andaman and Nicobar, Lakshadweep Islands and abroad can apply by **25 June 1995.**

(b) **For Senior Fellowship under IGMDP** : Candidates who fulfil the prescribed qualifications requirements should first seek admission in any of the Institution mentioned in TABLE I and then submit their applications to the respective Head of the Deptt/ Registrar where admission has been taken.

Please Note that the last date in the case of Senior Fellowship under IGMDP is based on the admission schedule of the respective Institution. Candidates are, therefore, advised to submit their applications alongwith requisite postal orders (in the name of Senior Accounts Officers, RAC, DRDO, New Delhi-110 011) direct to the Registrar/Dy. Registrar/Head of the Department of the Institute only after having obtained admission in the ME/M. Tech programme in the respective discipline.

8. GENERAL CONDITIONS/ INSTRUCTIONS :

(i) Candidates will have to produce the **original as well as one set of Self-attested copies of all the certificates/degrees** and marksheets in support of the age, educational qualifications, experience, etc at the time of Interview and **proof of having studied Electronics** as a special paper in M.Sc (for candidates applying for EFC only). The set of self attested copies of all the certificates/degrees will be retained at RAC. Before posting the application please ensure that documents are arranged in the following order -

(a) Postal Order

(b) One copy of recent passport size photograph should be pasted on right hand corner of the first page of the application.

(c) Certificate of SC/ST/OBC (if applicable)

(d) Application complete in all respect on specific format.

(e) Two unstamped self-addressed envelopes (23 cms x 10 cms).

(f) Copies of the EQ/Experience **should not be attached** along with application form.

(ii) Candidates working in Government/Public Sector/Autonomous Organisations should apply through proper channel. In case the application has not been forwarded through proper channel, the candidates should produce a 'NO OBJECTION CERTIFICATE' from their employer at the time of interview failing which they will be debarred from the interview.

(iii) The prescribed Essential Qualifications are the barest minimum and mere possession of the same does not entitle a candidate to be called for interview. Where the number of applications received in response to an advertisement is large, it will not be possible to interview all the candidates. RAC may restrict the number of candidates for interview to a reasonable limit on the basis of marks or qualifications higher than the minimum prescribed in the advertisement.

(iv) The number of Fellowships, Senior Fellowships mentioned is tentative and may change.

(v) Only typewritten applications on prescribed format will be accepted. Incomplete applications will be rejected and no correspondence will be entertained in this respect.

(vi) Only **Indian nationals need apply.**

(vii) The envelope containing the application should be superscribed with **'Applications for (Name of the Fellowship Scheme)'. Use one of the following Codes** :-

(a) General Candidates - GEN

(b) Scheduled Caste - SC

(c) Scheduled Tribe - ST

(d) Other Backward Class-OBC

(viii) CANVASSING IN ANY FORM WILL BE A DISQUALIFICATION.

(xi) **Selection** will be on the basis of a test and/or interview, however TA will be admissible to those who are called for interview only.

(x) **BOND** : Candidates will be under contractual obligation to serve the Defence Research & Development Organisation for a period of three years, after completion of training. During training the candidates will not be permitted to apply/appear for the interview/selection/examination.

(xi) PROMOTION PROSPECTS :

Promotion in DRDO is based on merit cum performance and is not linked to availability of vacancies in the higher grades. The organisation offers excellent opportunities for career advancement as Scientists. Result oriented and highly motivated scientists can look for ward to promotion to the following grades :

Scientists 'C' Rs. 3000-4500.

Scientists 'D' Rs. 3700-5000.

Scientists 'E' Rs. 4500-5700.

cientists 'F' Rs. 5100-6300.

cientists 'G' Rs. 5900-7300.

(ii) Candidates have the liability to serve anywhere in India.

(iii) Persons called for interview would be reimbursed actual rain/bus fare by shortest route limited to second class rail fare rom the normal place of residence to the place of interview only if they produce tickets (in case of bus Journey) of ticket/ticket number (in case of train journey).

(xiv) Scientists in regular Defence Research and Development Services (DRDS) will have the opportunity to carry out Ph.D. with external registration and may be sponsored for higher studies in Indian Institutes/ Universities. Opportunities are also available for study leave for carrying out higher studies in India and abroad.

APPLICATION FORMAT

(FILL THE APPLICATION IN BLOCK LETTERS ONLY)

JAME OF FELLOWSHIP COURSE .....

Affix here a signed copy of your recent passport size photograph (Approx 5cm x 7cm)

. Advertisement No. :

2. (a) Name in full (Shri/Smt/Km) : Surname [ ] First Name [ ] Second Name [ ]

(b) CATEGORY : GEN/SC/ST/OBC [ ]

3. Details of Postal Order(s) (No. Date & Amount)

4. (a) Date of Birth : [ ] D D M M Y Y

(b) Age as on 10 June 1995 .....Years ..... Months ....Days

5 Father's/Husband's name :

6. Address for correspondence : [ ] PIN [ ]

7. Permanent Address : [ ] PIN [ ]

8 Nearest Railway Station :

9. Educational Qualifications :
(In Chronological order from X std (SSLC/HS/HSC onwards)

Sr No.	Exam Passed Board	University/ Institution/	Year of Passing	Subjects taken	*Aggregate Percentage of Marks (correct upto two decimal)	Rank/Position in the Univ/ Board/IIT

* Marks of Individual semesters should not be mentioned. Where points/grades are awarded aggregate of marks should be calculated in accordance with the rules of the respective University/ Institution (Conversion formulae adopted may be mentioned). Candidates whose final results have not been declared should give the aggregate percentage of semester/ semesters for which the degree/ grade is awarded and mentioned "RESULT AWAITED".

10. (a) Are you having a valid GATE score (Yes/No)
(b) If yes, please give the
year & percentile score : Year ..... Score .....

11. (a) Are you a Govt Servant : Yes/No
(b) If yes, whether in Central/State Government/Union Territory (Write clearly)
(c) Experience in Years (as on 10 June 1995) : Yrs ...

12. Declaration :

I declare that the foregoing information is correct and complete to the best of my knowledge and belief and nothing has been concealed/distorted. If at any time, I am found to have concealed/ distorted any material information, my appointment shall be liable to summary termination without notice/compensation. I will, if and when required, take up duty in the discharge of government assignments anywhere in India.

Place :
Date :

Signature of Candidate

davp 95/58

CLASSIFIED ADVERTISEMENTS

MANIPUR UNIVERSITY
CANCHIPUR : IMPHAL - 795003

Advertisement No. 1 of 1995
Dated, the 3rd May, 1995

No.MU/4-16/87/FCY : Applications in prescribed form are invited from qualified candidates as per U.G.C. Circular No. 11/87 (CPP) dated 20.7.1992 for the following posts so as to reach the Registrar **on or before June 17, 1995** along with a fee of Rs. 30/- in IPO or Bank Draft in favour of the Registrar, Manipur University. Those who applied earlier in response to advertisement No. 12 dated the 16th December, 1992 need not apply again. In case, however, they like to up-date their bio-data, they may send their up-dated bio-data by making reference to their earlier applications. In the case of Management Studies, fresh applications only will be considered.

Professor : 1(one) each in Education, English and Management Studies

Associate Professor : 2 (two) in Commerce; 1 (one) in Mathematics; 2 (two) in Life Sciences; 1 (one) in History (Temporary); 1 (one) in Chemistry; 1 (one) in Manipuri, 1 (one) in Management Studies

Assistant Professor : 1 (one) in Commerce; 1 (one) in Computer Science; 1 (one) in Political Science; 2 (two) in Chemistry; 3 (three) in Life Sciences (1 post is temporary); 2 (two) in Geography; 2 (two) in Anthropology; 1 (one) in History; 1 (one) in English; 2 (two) in Management Studies

10% of the posts of Assistant Professors may be reserved for SC/ST.

Scales of pay :

Professor : Rs. 4500-150-5700-200-7300/- p.m. plus admissible allowance as per University rules.

Associate Professor : Rs. 3700-125-4700-150-5700/- p.m. plus admissible allowance as per University rules.

Assistant Professor : Rs. 2200-75-2800-100-4000/- p.m. plus admissible allowance as per University rules.

The prescribed application forms and other particulars (qualifications prescribed, branch of specialization etc.) are available from the University counter on payment of Rs. 15/- per application form in cash or by a crossed Demand draft/IPO drawn in favour of the Registrar, Manipur University, Imphal-795003. One self-addressed envelope of size 27cm x 12cm bearing stamps of Rs. 3/- should also be enclosed if the application form is to be sent by post. The University will not be responsible for any loss or delay in transit of the application forms.

It will not be binding on the University to invite all the applicants who fulfil the minimum qualifications for appearing before the Selection Committee. Candidates whose names have been recommended by the Screening Committee only shall be invited for the interview. The University reserves the right to consider persons who have not applied for the posts. The number of vacancies mentioned above may vary.

Th. Joychandra Singh
REGISTRAR

NIRMALA INSTITUTE OF EDUCATION
ALTINHO, PANAJI, GOA

Application with full bio-data is invited for the following post so as to reach the Principal **within 15 days** from the date of publication of this adevertisement for the year 1995-96.

Applications must be accompanied by certified copies of marksheets of all the examinations from SSC onwards. Those already employed, shall forward their applications through proper channel.

Category of Post : OPEN

Full-time Lecturer : 1 post

Qualifications :

Lecturer with Special Methods Konkani

Candidates should have good academic record with at least 55% marks or an equivalent grade at the M.Ed. degree from an Indian University or any equivalent degree from a Foreign University.

Candidates applying for Lecturer's post must be citizens of India and have passed the Eligibility Test for Lecturership conducted by the UGC, CSIR or similar test accredited by the UGC. However, if such candidates are not available or found not suitable, general category candidates will be appointed on temporary basis and the appointment will not be confirmed till the candidate passes the National Eligibility Test.

Scale of Pay : Rs. 2200-75-2800-100-4000 plus admissible allowances as per rules.

Terms and conditions of service are those laid down by the Goa University/ Directorate of Education, Goa and other competent authorities.

INDIAN INSTITUTE OF MASS COMMUNICATION
NEW DELHI

CORRIGENDUM

This has reference to the advertisement No. I/1655 appeared in the *University News* in its issue dated 17 April, 1995 inviting applications for various posts.

The following posts are reserved for the categories as indicated against each :

Technical Officer (Production) — reserved for OBC

Assistant Technical Officer (Radio)— reserved for ST

Graphic Artist — reserved for ST

Technician (Electronics) — reserved for OBC

Proof-Reader — reserved for SC

Rest of the things remain unchanged.

REGISTRAR

You can now Fax your Advertisement to *University News*

Fax 91-011-3315105

ASSUMPTION COLLEGE
CHANGANACHERRY - 686 101
KERALA STATE

Applications are invited for appointment as Lecturers (Ladies only) in vacancies likely to arise during 1995-'96.

(1) MALAYALAM : Probable Vacancy (Open Quota)

(2) ZOOLOGY : Community Quota

(3) HISTORY : Community and Open Quota

(4) CHEMISTRY : Probable Vacancy (Community Quota)

(5) ENGLISH : Probable Vacancy (Community Quota)

(6) ECONOMICS : Open Quota

(7) SANSKRIT : Part-time (Open Quota)

Qualification and age limit as per U.G.C. and Mahatma Gandhi University norms.

Apply to the Principal **within one month** from the date of publication of this notification. Application and other details can be had from the College Office on payment of Rs. 100/-.

PRINCIPAL

UNIVERSITY OF PUNE

Recruitment of JRF/Technical Assistant

Applications are invited for Department of Science and Technology sponsored project. "**Determination of Overlayer Structure Using X-ray Photoelectron and Auger Electron Diffraction**" for three years.

J.R.F. (1) - M.Sc. (Physics or Electronics Science) I Class. Preference to NET qualified candidate. **Scale** Rs. 2500 + H.R.A.

Technical Asstt. (1) - M.Sc. (Physics, Electronics/Instrumentation Science)/B.E. (Electronics or Instrumentation), minimum higher II class. **Scale** Rs. 1400-40-1800.

Candidate for final examination may also apply. Applications, with complete biodata, on plain paper be sent to *Dr. Mrs S.K. Kulkarni, Department of Physics, University of Pune, Pune 411 007* **within ten days** of publication of advertisement.

Advt. No. 30 **Subhaschandra Bhosale**
Date : 10/5/1995 **REGISTRAR**

OFFICE OF THE REGISTRAR
DIBRUGARH UNIVERSITY
DIBRUGARH

No. DU/EST/Advt.-T/95/168-178
Dated 8/5/1995

ESTABLISHMENT BRANCH
ADVERTISEMENT NO. 2/95

Applications are invited for the following posts :

1. **Reader in Anthropology** : 1 (one) post : Specialisation - Open. (A) Qualification : As per UGC norms prescribed for the University Reader. (B) At least 5 years experience of Teaching and/or Research provided that at least 3 years experience as Lecturer or in equivalent position.

2. **Lecturer in History** : 1 (one) post : Spl-Open. Preference will be given to candidates having Russian/American History as one of the papers in B.A. and M.A. levels. Qualification and other academic/Research requirements as per UGC norms prescribed for the University Lecturer.

3. **Research Assistant (Deptt. of History)** : 1 (one) post : 1. Uniformly good academic career; Second class Master's Degree in History with at least 50 p.c. marks in the subject. 2. Ability to read original Assamese Manuscripts. 3. Prepared to travel extensively in remote areas. 4. Evidence of Research aptitude. 5. Knowledge of typing will be considered as additional qualification.

4. **Research Associate (Deptt. of Assamese)** D.S.A. 1 (one) post : M.A. in Assamese (Group A), preferably below the age of 45 years. (55 years in case of women candidates) with Doctorate Degree and published research works and works of merit. The tenure will be for 3 years extendable for another term to take up research work independently on a project assignment at the rates of (i) 2200-100-2700, (ii) 2700-100-3200, (iii) 3200-100-3700, (iv) 3700-100-4325 whichever is applicable, besides a contingency grant of Rs. 5000/- for the period.

Scale of pay :

1. **Reader** : Rs. 3700-125-4950-150-5700 p.m.

2. **Lecturer** : Rs. 2200-75-2800-100-4000 p.m.

3. **Research Asstt.** : Rs. 1835-50-2035-60-2155-EB-60-2395-80-2555-EB-80-2875-100-3575-125-4325 p.m.

9 (nine) copies of application giving full bio-data, Academic career, Research contribution, previous appointment if any held with copies of certificates etc. with no objection certificate from the employer and with an application fee of Rs. 30/- (Rs. 10/- in case of SC/ST) drawn in favour of the Registrar, Dibrugarh University, payable at the D.U. branch of State Bank of India, should reach the undersigned **on or before 31-5-1995**.

Candidates will be required to appear before an interview if and when called for.

No TA/DA is admissible.

B.C. Saikia
REGISTRAR

HIMACHAL PRADESH UNIVERSITY
SHIMLA - 171005

ADVERTISEMENT No. 2/95

Applications are invited (on prescribed form) for the following teaching/non-teaching posts so as to reach the Assistant Registrar, Recruitment Branch, H.P. University, Shimla 171005, alongwith a crossed Indian Postal Order of Rs. 20/- (Rs. 5/- for SC/ST) payable to the Finance Officer, HPU by **June 15, 1995** :

I. **PROFESSORS** (Pay Scale : Rs. 4500-7300) in the following subjects of Teaching Deptts :
Sociology-1 (Plan post), **Political Science-2, Hindi-3** (Spl. in Translation-1, General-2 out of which one post is leave vacancy for about one year), **Law-1.**

II. **READERS** (Pay Scale : Rs. 3700-5700) in the following subjects of Teaching Deptts :

i) **Physics-2** (One in Experimental Electronics, Solid State Physics or Material Science), **Hindi-1** (Specialisation in Translation), **Mathematics-1** (Plan post), **Yoga-1** (Plan Post), **English-1, Psychology-1, Statistics-1, Management Studies-2.**

ii) **For International Centre for Distance Education & Open Learning** : History-1, Sanskrit-1, English-1, Political Science-1.

III. **LECTURERS** (Pay Scale : Rs. 2200-
a) i) 4000) in the following subjects of Teaching Deptts :

Law-1, French-1, Education-1, Mathematics-1, Tourism Admn-1, Economics-1, Bio-Sciences (Zoology)-1, Management Studies-1.

ii) **For International Centre for Distance Education & Open Learning : Sociology-1.**

iii) **For H.P. University Evening College, Shimla : Public Admn-1, English-1.**

b) *Following posts of Lecturers are reserved for Scheduled Castes candidates :*

Law-1, Education-1, Physics-1, Management Studies-1, Mathematics-1, Tourism Admn-1.

IV. **Director-1** (For H.P.U. Regional Centre, *Dharamsala*)
(Pay Scale : Rs. 4500-7300).

V. **Director-1** (For HPU International Centre for Distance Education & Open Learning) (Pay Scale : Rs. 4500-7300).

VI. **Dean of Colleges-cum-Director College Development Council-1** (Pay Scale : Rs. 4500-7300).

VII. **Librarian-1** (Pay Scale : Rs. 4500-7300).

VIII. **Public Relations Officer-1** (Pay Scale : Rs. 2200-4000).

IX. **Assistant Director-1** (Physical Education) (Pay Scale : Rs. 2200-4000).

X. **Coach-1** (Volley-ball Male) (Pay Scale : Rs. 2200-4000).

XI. **Executive Engineer (Design)-1.** (Pay Scale : Rs. 3000-4500).

XII. **Principal, HPU Evening College, Shimla-1.** (Pay Scale : Rs. 3700-5700).

The qualifications for the above mentioned posts will be made available with the application form.

Candidates already in service should send their applications through proper channel. An advance copy, however, may be sent direct.

Candidates called for interview will have to come to the place of the interview at their own expenses and bring with them their original research papers, degrees and certificates, etc. for verification.

The University reserves the right to fill up or not to fill up the posts or to call only suitable candidates for interview. The number of posts likely to be filled may vary.

Application form alongwith detailed qualifications and other conditions can be obtained from the **Assistant Registrar, Recruitment Branch, H.P. University, Shimla-5,** personally on payment of Rs. 5/- or by making a written request to him accompanied by self-addressed envelopes of 23 x 10 cms with postage stamps affixed worth Rs. 2/- and a postal order of Rs. 5/- drawn in favour of Finance Officer, H.P. University, Shimla.

NOTE :

i) Applications received on plain paper, applications not in conformity with the requirements as specified in the application form and applications received after the last date will not be entertained and no correspondence will be entertained in this regard.

ii) A person applying for more than one post should send a separate application for each post.

iii) Persons who have applied earlier in response to Advt. No. 1/94, dated 5.1.94 for the post of Director, HPU Regional Centre, D/Sala, Dean of College-cum-Director, College Dev. Council, Librarian, Public Relations Officer, Coach, and against Advt. No. 2/94, dated 20.1.94 for the posts of Professor in Sociology, Political Science, Hindi, Law, Readers in Physics, Hindi, Yoga, History (DCC), Sanskrit (DCC), Lecturer in Law, French, Education, Public Admn (HPUEC), Sociology (DCC) for general category and for Lecturers in Law, Education, Physics and Principal, HPU Evening College need not to apply again, but their earlier applications will only be considered if they fulfil the latest qualifications for the concerned posts. They may send additional information, if any.

Advt No. 5/95-PRO

A.R. Chauhan
REGISTRAR

S.N.D.T Women's University

1. Nathibai Thackersey Road, Bombay - 400 020.
Ad. No. 3 of 1995/15.5.95

Applications in prescribed form, are invited for the post of **REGISTRAR,** from the persons fulfilling the following conditions :

(i) Unless already in the service of Universities or affiliated colleges is not less than 45 years of age,

(ii) an eminent scholar with published work of high quality, actively engaged in research, with 10 years experience in post graduate teaching and/or research at the University/National level Institutions, including experience on guiding research at doctoral level **OR** an outstanding scholar with established reputation who has made a significant contribution to knowledge.

Proficiency in English and knowledge of Marathi and/or Gujarati/Hindi. The appointment will initially be made for a period of five years. It may be renewed for a similar term. The selected candidate will be provided with rent-free quarters.

Salary Scale - Rs. 4500-150-5700-200-7300 plus admissible allowances. Total emoluments at the minimum of the pay scale will be Rs. 9690/- per month.

Applications should reach the Registrar **on or before June 14, 1995.** Applications received after due date or on plain paper will not be considered. Application forms are available on payment (cash or by money order of Rs. 25/-) from the above address on all working days between 10.30 a.m. to 2.30 p.m.

REGISTRAR

St. Pius X College
Rajapuram - 671 532
Kasargod Dist.

WANTED

Applications are invited for the post of Lecturers in probable vacancies for the following subjects : Microbiology, Economics, English, Hindi, Malayalam, Physics, Chemistry, Mathematics, Computer Science and Physical Education. Some posts may be part time. Qualifications and age limit as per U.G.C. and Calicut University norms. Apply **within 30 days.**

Applications are also invited for the various Office Staff (Non-teaching) for the following positions : 1. Clerk, 2. Typist, 3. Librarian, 4. Attender, 5. Last grade staff, 6. Mechanic, 7. Gas man. Qualifications, age and salary as per Calicut University norms.

Application forms can be had from the Manager, St. Pius X College, Rajapuram - 671 532 on payment of Rs. 50/- or Rs. 60/- by M.O. for the post of lecturers and Rs. 20/- or Rs. 30/- by M.O. for the post of non-teaching staff.

MANAGER

CONSORTIUM FOR EDUCATIONAL COMMUNICATION

The Consortium for Educational Communication is a nodal agency set up by UGC for educational media. It coordinates the activities of different Media Centres located in the Universities and addresses the educational needs of the country through the use of media. It is also vested with the responsibility for the 'Countrywide Classroom' programme that is being telecast (both in English and Hindi) through the national network of Doordarshan.

The Consortium invites applications for the following posts :

Sr. No.	Position	Pay Scale	Essential Qualification	Desirable Qualification
1.	Asstt. Project Officer (Reserved for SC)	Rs. 2200-4000	Masters degree from a recognised University/Institution in Mass Communication/Journalism/ Social Sciences/Sciences/Humanities with at least 55% marks or equivalent grade. At least 3 years experience of teaching/ research and two years of working in audio-visual medium including experience in scripting, production & preview of programmes, etc. (The experience may be concurrent)	Ph.D. in relevant field or experience in TV/Educational TV. Fluency in writing in Hindi
2.	Engineer	Rs. 2200-4000	B.E. (Electronics/Telecommunication) with two years experience of using and maintaining audio-visual equipment OR M.Sc (Physics with Electronics specialisation) with atleast 55% marks and two years experience in use/maintenance of audio-visual equipment.	Candidates having experience in maintenance of television studio equipment will be preferred.
3.	Technical Assistant (Reserved for SC)	Rs. 1640-2900	Higher Secondary (12th standard) with 55% marks and a 3 years Diploma course in Electronics from a recognised institute or equivalent qualification. OR SSC (10th) with a Diploma (3 years structure) in Electronics and two years experience in operation and maintenance of audio/video and electrical equipment.	- do-
4	Computer Programme Asst.	Rs. 1640-2900	Graduate in Science/Commerce with 55% marks and a certificate or diploma in Computer Applications from an institution of repute. At least 2 years experience of using PC and familiarity of using programmes like dBase IV, Fox Pro, Quattro, Lotus, etc.	Knowledge of writing/developing software programmes
5.	Stenographer (Two) (one post is reserved for SC)	Rs. 1400-2600	S.L.S. (10+2) or equivalent qualification with at least 50% marks. Proficiency in Shorthand and typing with a speed not less than 100 w.p.m. and 45 w.p.m. respectively.	Experience in using office automation equipment like PC, FAX, Photocopiers, knowledge of operating EPABX and TELEX. A graduate degree will be an an additional advantage. Knowledge of typing Hindi.
6.	U.D.C. (Reserved for SC)	Rs. 1200-2040	Graduate with at least 50% marks and minimum 2 years experience of handling matters relating to personnel, establishment, leave, etc. including purchase, tender, quotation, issue of purchase orders and inventory maintenance in any Govt/Autonomous/ Public Sector Undertaking or a private firm of repute.	Conversant with personal computer and use of software like Wordstar, Lotus and financial packages. Experience of dealing with other departments/organisation.
7.	Helper (Reserved for SC)	Rs. 750-940	S.S.C. (Standard X). Must be prepared to do multifunctional duties.	

For all these posts the upper age limit is 30 years as on July 1995 which is relaxable by 5 years for SC/ST/OBC candidates.

Application be made on plain paper and should contain the following details:

(a) Full Name in BLOCK LETTERS (b) Mailing Address (c) Date of Birth (d) Whether belongs to SC/ST/OBC (e) Father's/Spouse's Name (f) Details of Education including subjects taken, year of passing the examination, marks obtained (aggregate), Name of Board/University (g) Complete service details including designations, pay scale, reason for leaving (where applicable) (h) Language can read/write (i) Whether compulsorily retired or dismissed or convicted at any time (j) Any other information that the candidate may wish to furnish.

Those employed in State/Central Government Department/Public Sector/Autonomous Body should send their applications through proper channel.

The last date for receiving application is **15 days** from the date of publication of this advertisement. The candidates are required to clearly indicate the name of the post for which the application is being made on the top of the envelope failing which the application will be rejected. The candidates desirous for applying for different posts must apply separately. The applications be sent by registered post to the Chief Administrative Officer, Consortium For Educational Communication, (Nuclear Science Centre Campus), Aruna Asaf Ali Marg, New Delhi-110 067.

MAR ATHANASIUS COLLEGE ASSOCIATION

KOTHAMANGALAM, KERALA

Applications are invited for the following posts in the Mar Athanasius College of Engineering, Kothamangalam in the prescribed form so as to reach the undersigned within **30 days** from the date of this advertisement.

1. Lecturer in Mechanical Engineering (Anticipated-2)

2. Lecturer in Electronics & Communication Engg. (Anticipated-2)

3. Lecturer in Computer Science & Engineering : 2

4. Tradesman - Civil (Anticipated-2)

5. Tradesman - Mechanical Turning - 1

6. Tradesman-Electrical (Anticipated-2)

Scales of pay, qualifications and age etc. will be as per norms prescribed by the AICTE for the posts 1 to 3 and by the Government of Kerala for the posts 4 to 6.

Application forms and other details can be had from the Principal, M.A. College of Engineering, Kothamangalam-686 666 on request enclosing a self-addressed envelope 23 x 10 cm. affixing stamp worth Re. 1/- and a postal order for Rs. 20/- towards the cost of form. Filled up applications are to be sent to the undersigned.

Kothamangalam **SECRETARY**
9-5-1995

Shree Warana Vibhag Shikshan Mandal's
TATYASAHEB KORE INSTITUTE OF ENGINEERING & TECHNOLOGY
WARANANAGAR-416 113, TAL PANHALA, DIST. KOLHAPUR, [M.S.]

WANTED

Applications are invited for the following various posts in our Institute.

	Designation	No. of Posts
1.	Principal	1
2.	Librarian	1
3.	Director of Physical Education	1

Applications are also invited for the following various posts in our departments.

Sr. No.	Department	Professor		Asstt Prof.		Lecturer	
		Open	Reserved	Open	Reserved	Open	Reserved
1.	Civil Engg.	1	1 SC [I]	-	-	-	1 OBC [I]
2.	Chemical Engg.	-	1 SC [I]	2	1 SC [IV]	2	1 SC [I] 1 VJ(A) [I]
3.	Electronics Engg.	-	1 SC [I]	-	1 SC [I]	1	1 SC[I] 1 ST [I]
4.	Electrical Engg.	-	-	-	-		1 SC [I]
5.	Mechanical Engg.	-	-	-	1 SC [VII]	2	1 SC [III]
6.	Physical Chemistry	-	-	-	-	1	-
7.	Polymer Chemistry	-	-	-	-	1	-
8.	Mathematics	-	-	-	-	1	1 SC [VII]
9.	English	-	-	-	-	1	-

Note :

1. Roman figures in the brackets show number of times the post is advertised.
2. i) The reserved post advertised for 1st to 5th times will be filled in by particular reserved category only.
   ii) The reserved posts advertised for 6th or more times will be filled in by transferring the categories internally as : SC to ST and ST to SC.
   iii) If B.C. candidates as i) & ii) above are not available then other candidates will be considered for appointment for 6 months only.
3. SC/ST/VJ[A] applicants should send a copy of their applications to Special Cell Unit, Shivaji University, Kolhapur.
4. SC/ST/VJ[A] candidates, who are domiciled out of Maharashtra State will be treated as Open.
5. Educational Qualification, Service conditions and Scale will be as per the rules of AICTE, Shivaji University & Government of Maharashtra norms.
6. Recently retired persons may also apply for senior faculty.
7. Interested candidates may apply for prescribed application [details of qualification and experience] alongwith a self addressed stamped envelope (25 cm x 10 cm with stamps worth Rs. 2/- affixed) to this Office in the name of the PRINCIPAL. The prescribed form will be available at the office free of cost on any working day.
8. Completed application form must reach the PRINCIPAL **within 30 days** from the date of this advertisement.

CHAIRMAN

BIRLA INSTITUTE OF TECHNOLOGY & SCIENCE (BITS)

PILANI, (RAJASTHAN) 333 031

ADV. NO. 1/95/ADMN.

ADMISSIONS FOR I SEMESTER 1995-96

The Birla Institute of Technology and Science (BITS) is an all-India Institution for men and women, fully residential and privately supported, and awards its own degrees

I. PROGRAMMES

Admissions will be made on all-India basis strictly according to merit and suitability of the candidate to pursue the following programmes of studies

1. Integrated First Degree programmes. Group A : B.E (Hons.) Chemical; Civil, Computer Science; Electrical and Electronics; Instrumentation, Mechanical, B Pharm. (Hons.), M.M.S. (Master of Management Studies)

Group B : M Sc (Hons) : Biological Sciences; Chemistry, Economics, Mathematics, Physics

Group C : M A (Hons) · English, Finance, General Studies. M Sc (Tech) Engineering Technology, Information Systems; Science & Technology Development

Normal Input : 12 year product of the Central/State Board 10+2 school system or its equivalent, with Physics, Chemistry, Mathematics and adequate proficiency in English

Note : 1. All Integrated first degree programmes are of normally 4 years duration

2. Admissions are based on the normalized aggregate percentage of marks and there is no separate entrance examination

2. Higher Degree programmes: (a) M E (Collab.) Project Engineering at DCL, Calcutta, M S (Industrial Production & Management) at GRASIM, Nagda

Normal Input : Any Integrated first degree of BITS or its equivalent with certain specified courses as described in the Bulletin The duration will be normally two years

(b) M E in Biotechnology, Chemical; Civil; Computer Science, Electronics & Control, Management Systems, Mechanical, Microelectronics (in collaboration with CEERI, Pilani), Software Systems, Systems & Information, M Pharm ; M Phil

Duration : Normally 3 Semesters

Normal Input : M E, Chemical, Civil; Computer Science; Mechanical - Integrated first degree of BITS in the same discipline or its equivalent. Electronics & Control - Integrated first degree of BITS in Electrical & Electronics or in Instrumentation or its equivalent.

Microelectronics-Integrated first degree of BITS in Electrical & Electronics/Instrumentation/Computer Science/Physics or its equivalent.

Systems & Information; Software Systems - Any Integrated first degree of BITS or its equivalent with specific prior preparation.

Management Systems - Integrated first degree of BITS in Management (MMS) or its equivalent.

Biotechnology - Any Integrated first degree of BITS or its equivalent with adequate preparation in Biochemistry and Microbiology.

M.Pharm : Integrated first degree of BITS in Pharmacy or its equivalent.

M.Phil.· Any Integrated first degree of BITS or its equivalent.·

3. Doctoral Programmes leading to Ph.D.:

Normal Input : Any Higher degree of BITS or its equivalent.

Off-campus Ph.D./Ph.D. Aspirants Scheme : The scheme is aimed for professionals at large who have long experience and proven competence; they may be even without a formal degree in rare cases. Under the scheme candidates will be allowed to pursue their studies at their own locations and on topics of research from their professional world.

Note: For Higher degree and Ph.D. Programmes, Institute will conduct its own tests and interviews at Pilani at the candidate's cost. While GATE score may have no bearing on admissions, it will enable a student to get UGC scholarship. Limited financial aid for deserving candidates may be possible

4. Off-campus Degree Programmes through Distance Learning for Employed Professionals :

(I) Integrated First Degree Programmes leading to B.S. in Engineering Technology; Information Systems.

Normal Input: Admissions to these degree programmes are planned only for employed persons with about 2 years experience and with technical diploma or an undergraduate degree, like B.A., B.Sc., B.Com, etc. The duration of the programme will be normally 3 years

(II) Higher Degree Programmes leading to M.S. in Computer Science; Electronics & Control; Pharmacy Operations; Science & Technology; Software Systems; Systems & Information; Technological Operations.

Normal Input : Employed persons with relevant Integrated first degree of BITS or its equivalent. The duration of the programme will be normally 3 semesters.

Note : Admission to all Off - Campus Programmes will depend on the sponsorship of the employing organizations, the participation of the employing organizations in terms of creation of local study centres and infrastructural facilities, professional standing of the candidates, viable numbers and other prior preparations required.

5. Other off-campus programmes conducted in Collaboration with specific organisations, for which separate advertisement will be issued whenever required :

At the Integrated First Degree level : M.V.S. in Footwear Technology, Physician Assistant; B.S. in Industrial Management, Process Engineering, Engineering & Industrial Technology, Optometry

At the Higher Degree level : M.S. in Biomedical Sciences, Consultancy Management, Design Engineering, Electronic Sciences, Engineering Management, Habitat Technology, Management Systems, Medical Laboratory Technology, Physical Sciences, Software Engineering. M.Phil. in Mathematics, Physics, Hospital & Health Systems Management, Science Communication & Journalism.

Note : The Institute has an open mind to offer these Programmes or devise any other innovative Programme if request comes from any other organisation interested in their Human Resource Development

1. All Programmes are of modular structure with several flextbilities like multiple point entry, transfer from one programme to another, possibility of doing two degrees simultaneously (dual degree), etc.

2. All students admitted to Group B Programmes will be given an opportunity to work under the dual degree scheme for one of the Group A Programmes, assignment being made by competition on their performance at BITS at the end of first year.

3. The Institute's well known PRACTICE SCHOOL option is available to all students working for every degree in Groups A, B and C and higher degrees.

4. Diploma holders in engineering or other technical subjects may be considered for admission for suitable Group C Programmes with advanced standing.

5. Students coming with integrated first degree of BITS in A and B Groups may be considered for admissions to any M.E. Programme with the requirement of taking additional courses. The duration in these cases may be two years and will be determined on a case by case basis. Similar dispensation may also be possible for students coming with an engineering degree from IITs and other reputed Institutions

6. While admissions are open without reference to caste, creed, class or sex, special consideration is given to candidates belonging to scheduled castes and scheduled tribes

Note : For all details, candidates must consult the Bulletin, which will be supplied along with the application form

III. APPLICATION PROCEDURE

1. Separate application forms are prescribed for the different

FD Integrated First Degree Programmes (Groups A, B and C)
HD Higher Degree Programmes (M.E., M.Pharm., M.Phil.,
M.E. (Collab), M.S.
(Industrial Production & Management)
PH Doctoral Programmes including Ph.D Aspirants
BZ B.S Degree Programmes (Off-Campus)
MZ M S. Degree Programmes (Off-Campus)

2. To obtain the application forms and Bulletin 1995-96 separate request for each form must be made accompanied by a crossed Indian Postal Order for Rs 300/- (Rs 450/- including airmail charges for sending to foreign countries) in the name of **Admissions Officer** payable to him at Pilani Post Office The amount may also be sent through a crossed Demand Draft drawn in favour of **Birla Institute of Technology & Science,** on UCO Bank, Vidya Vihar, Pilani (Code 0150) or State Bank of Bikaner & Jaipur, Pilani (Code 1398) All requests should be made on Plain paper giving the following information

(a) Name with complete Postal address.
(b) Programme name and code
(c) Details of application fee (Draft/IPO No , date & value)

All admission material will be sent by registered parcel post If your postal address permits SPEED POST, and if you desire the admission material to be sent by speed post, such request can be entertained provided an additional amount of Rs 50/- is sent along with the application fee (i e , a total fee of Rs. 350/-)

3. Deadline for submission of the completed application forms is **5.00 p.m. on 30th June, 1995.**

MAY, 1995 **ADMISSIONS OFFICER**

THAPAR INSTITUTE OF ENGINEERING AND TECHNOLOGY : PATIALA.

(Deemed University)

ENTRANCE EXAMINATION FOR ADMISSION TO MASTER OF COMPUTER APPLICATIONS (THREE-YEAR COURSE AND 30 SEATS) FOR THE 1995-96 SESSION

The Institute will hold the Entrance Examination at Patiala and Delhi on **Sunday July 2, 1995.** Each paper in Mathematics, Logical Analytical Abilities and English including General Knowledge will be of one hour duration.

Eligibility Conditions

All those candidates who have passed or are due to appear in the **B.Sc./B.Com./B.A.** examination or equivalent examination of a recognised University to be held in **April, 1995** with one or more of the subjects of Physics, Mathematics and Statistics at the graduation level with atleast 50% marks in aggregate (Relaxation of 5% marks allowed for Scheduled Castes/Tribes candidates).

Prospectus and Other Information

The prospectus, syllabus and application form will be on sale from **May 7, 1995** and can be had on payment of **Rs. 100/-** at the Institute counter Or By Post from the Registrar of the Institute on remitting **Rs. 120/-** (including postage) through Bank Draft drawn in favour of the **Registrar, Thapar Institute of Engineering and Technology, Patiala** on any scheduled Bank at Patiala. No request for supply of Prospectus by post will be entertained after **June 5, 1995.**

Last date of receipt of completed application forms is **June 12, 1995 (upto 5.00 P.M.)**

REGISTRAR

Published by SUTINDER SINGH, on behalf of the Association of Indian Universities, AIU House, 16 Kotla Marg, New Delhi-2. Grams: ASINDU. Phones: 3310059, 3312305, 3312429, 3313390, 3323097 and 3712435. Fax: 011-3315105 Telex: 31-66180 AIU IN

Printed by Navchetan Photoset (P) Ltd. at Navchetan Printers, 1-E/2, Jhandewalan Extension, New Delhi-110055. Tel. 529157